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ABSTRACT

Designed to tap the rich collection of instructional techniques in the ERIC database, this compilation of lesson plans offers practical suggestions for incorporating computers into the English/language arts classroom at both the elementary and secondary level. Because many teachers and administrators are using computers for the first time, the first section of the TRIED offers guidelines on the sequential organization of word-processing skills, software selection, class organization, desktop publishing, and a variety of other considerations for the effective integration of computers into the instructional program. The second section of the TRIED provides lessons using the computer in elementary language arts classes. The final section of the TRIED offers lessons for English teachers to use with their computer resources. A 47-item annotated bibliography of related resources in the ERIC database is attached. (RS)

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Computers in English/Language Arts

Sharon Sorenson

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ERIC Clearinghouse on Reading and Communication Skills

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ERIC (an acronym for Educational Resources Information Center) is a national network of 16 clearinghouses, each of which is responsible for building the ERIC database by identifying and abstracting various educational resources, including research reports, curriculum guides, conference papers, journal articles, and government reports. The Clearinghouse on Reading and Communication Skills (ERIC/RCS) collects educational information specifically related to reading, English, journalism, speech, and theater at all levels. We also cover interdisciplinary areas, such as media studies, reading and writing technology, mass communication, language arts, critical thinking, literature, and many aspects of literacy.

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TRIED is an acronym for Teaching Resources in the ERIC Database.

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Series Introduction

Dear Teacher,

In this age of the information explosion, we can easily feel overwhelmed by the enormity of material available to us. This is certainly true in the education field. Theories and techniques (both new and recycled) compete for our attention daily. Yet the information piling up on our desks and in our minds is often useless precisely because of its enormous volume—how do we begin to sort out the bits and pieces that are interesting and useful for us?

The TRIED series can help. This series of teaching resources taps the rich collection of instructional techniques collected in the ERIC database. Focusing on specific topics and grade levels, these lesson outlines have been condensed and reorganized from their original sources to offer you a wide but manageable range of practical teaching suggestions, useful ideas, and classroom techniques. We encourage you to refer to the sources in the ERIC database for more comprehensive presentations of the material outlined here.

Besides its role in developing the ERIC database, ERIC/RCS is responsible for synthesizing and analyzing selected information from the database and making it available in printed form. To this end we have developed the TRIED series. The name TRIED reflects the fact that these ideas have been tried by other teachers and are here shared with you for your consideration. We hope that these teaching supplements will also serve for you as a guide, introduction, or reacquaintance to the ERIC system, and to the wealth of material available in this information age.

Carl B. Smith, Director

ERIC/RCS

USER'S GUIDE for
Computers in English/Language Arts *TRIED*

These lessons offer practical suggestions for incorporating computers into the English/language arts classroom at both the elementary and secondary level. Because many teachers and administrators are using computers for the first time, the first section of this TRIED offers guidelines on the sequential organization of word-processing skills, software selection, class organization, desktop publishing, and a variety of other considerations for the effective integration of computers into the instructional program. The second section provides lessons using the computer in elementary language arts classes. The final section offers lessons for English teachers to use with their computer resources.

An "Activities Chart" (pages vi-vii) indicates the focus and types of activities (such as collaborative learning, remedial instruction, teacher-student conferencing, etc.) found in the various lessons. An annotated bibliography at the end of the book contains references to additional lessons as well as to resources for using computers in the English/language arts.

LESSON DESIGN

These lessons offer practical ideas that have been gathered from their original source in the ERIC database. The ED numbers for sources in *Resources in Education (RIE)* are included to enable you to go directly to microfiche collections for the complete lesson, or to order the complete document from the ERIC Document Reproduction Service (EDRS). The citations to journal articles are from the *Current Index to Journals in Education*, and these articles can be acquired most economically from library collections or through interlibrary loans.

These lessons have been revised from their source into a consistent format for your convenience. Each lesson includes the following sections:

Brief Description

Objective

Procedures

Personal Observation

Although the lessons are addressed to you, the teacher, many times the TRIED text addresses the students directly. These student directions are indicated with a "•" (bullet). Address these remarks to your students throughout the lesson, if you so choose.

You know your students better than anyone else. Adapt these lessons to the ability levels represented in your classroom. Some of the lessons were specifically written for certain levels, but can be modified easily. Consider these lessons as recommendations from your colleagues who TRIED them and found that they worked well. Try them yourself, modify them, and trust your students to respond with enthusiasm.

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Activities Chart

	Classroom Management	Collaborative Learning	Descriptive Writing	Elementary Education	Hardware/Software	High School	Journal Writing	Peer Editing	Personal Experience	Prewriting	Publishing	Reading Instruction	Remedial Instruction	Revision	Story Writing	Teacher Guides	Teacher-Student Conferences	Word-Processing Skills
Skill Progression (p. 2)	X			X	X											X		X
Management Strategies (p. 5)	X			X												X		X
Getting Started (p. 7)	X					X										X		X
Software Selection (p. 9)					X	X										X		X
Large-Screen Monitor (p. 11)	X			X	X	X										X		X
Scheduling Computer Time (p. 12)	X	X		X	X	X										X		
Sts. with Writing Problems (p. 14)	X			X		X							X			X		
Learning-Disabled Sts. (p. 15)				X		X							X			X		
Conferencing Ideas (p. 17)	X	X		X		X										X	X	
Writing Processes (p. 19)	X			X		X										X	X	
Desktop Publishing (p. 21)				X	X	X					X					X		
Basic WP Skills (p. 24)				X														X
Sentence Combining (p. 26)				X														X
Beginning Writers (p. 28)				X							X			X			X	X
Writing in First Grade (p. 30)	X	X		X				X						X				
Language Experience App. (p. 32)		X		X							X				X			
Stories/Dialogues (p. 34)		X		X	X										X			

Activities Chart (continued)

	Classroom Management	Collaborative Learning	Descriptive Writing	Elementary Education	Hardware/Software	High School	Journal Writing	Peer Editing	Personal Experience	Prewriting	Publishing	Reading Instruction	Remedial Instruction	Revision	Story Writing	Teacher Guides	Teacher-Student Conferences	Word-Processing Skills
Writing Dialogues (p. 36)		X		X				X		X				X	X			
Effective Communication (p. 38)			X	X		X		X						X				
Computerized Biographies (p. 40)		X	X	X		X		X	X					X				
Dialogue Journals (p. 42)		X		X		X	X		X									
Personal Narrative (p. 44)		X		X		X		X	X	X	X			X				
Remedial Reading (p. 46)		X		X	X							X	X					
Learning-Disabled Students (p. 48)				X									X				X	X
Writing Problems (p. 50)				X									X	X				
Revision Skills (p. 51)				X	X	X		X						X				
Electronic Mail (p. 54)		X			X	X			X									
Group Work (p. 56)		X			X	X		X			X			X				
Style Analysis (p. 58)		X			X	X		X										
Invisible Writing (p. 60)						X				X								
Précis Writing (p. 61)		X				X												
Collaborative Writing (p. 62)		X				X												
ESL Writing (p. 64)		X				X		X					X					

Guides for Using Computers in Your Classroom

Word-Processing Skills

Progression through the Grades

Source

ED 281 216

Schaeffer, E. Marilyn. *Teaching Writing with the Microcomputer.* Phi Delta Kappa Educational Foundation, Bloomington, IN. 1987. 43 pp.

Brief Description

If teachers plan a grade-by-grade progression for teaching word-processing skills, neither students nor teachers will be frustrated or overwhelmed by the complexity of computer and/or software operation. The following guidelines for grades one through six will generate life-long, competent word-processing users.

Objective

To suggest at which grade levels various computer and word-processing skills can best be taught; to consider student and equipment limitations in the overall plan; to incorporate the best techniques for adapting word processing to primary and elementary classrooms.

Procedures

First Grade

Students can be taught how to care for diskettes, how to turn the computer off and on, and how to use the computer safely. You may wish to use a "computer license," similar to a driver's license, that requires students to pass an operator's test in order to operate the computer. You can also revoke the license if a student breaks the rules.

You can introduce a simple word-processing package. As with any other skill, you must demonstrate computer skills several times, and supervise students closely while they practice. Children may begin developing keyboarding (what we used to call "typing") skills even before first grade, for it is easier to type well than it is to write. The most important concept at the first-grade level, however, is that students have the fun of recording their stories. Don't worry about invented spellings and sentence structure. If possible, use a large-type print wheel for easier reading.

Second Grade

Students can link sentences logically to put events in sequence. Continue to teach basic computer skills: inserting a disk, running a simple program that does not use a menu or prompts. By the end of second grade, students can use the equipment independently, understand the difference between a program disk and a data disk,

and may be ready for programs like *Bank Street Writer*. Explain that the write mode is like using a pencil to write and the edit mode is like using an eraser. Make a poster to illustrate the concepts.

Third Grade

Third graders can continue concentrating on fingering. Certain simple programs are suitable for teaching third graders correct keyboarding techniques. They can load the computer, using both program and data disks without your constant supervision. You may wish to use red stickers on program disks and blue stickers on data disks. Third-grade students are capable of writing short essays of two to three paragraphs. Hence, they are ready to learn to indent. They can learn to center titles. When they finish a piece, they can learn how to store it on a disk.

Fourth Grade

Students can boot up software without your guidance, select an item from a menu, write a simple computer program, and understand—at least fundamentally—how a computer is used in the work world. They can be fairly good at keyboarding. Because they are ready to do simple library papers, fourth graders are ready to work with sophisticated software.

Some experts think it is worth the time to introduce *WordPerfect*, *AppleWorks*, or *SuperScripsit* at fourth-grade level. These are programs that students will use throughout high school, college, and beyond. While they may not learn all commands for several years (there are professionals who still do not know everything their software can do!), they will not have to keep learning new programs as they progress through the grades.

Fourth graders are ready to learn block commands: moving sentences and deleting blocks. Illustrate the concept with charts or transparency overlays. Use proofreaders' editing marks to help students become accustomed to them. Finally, by the end of fourth grade students should be able to use print commands without teacher assistance.

Fifth Grade

If they have followed the steps above, students can understand fully how a computer works. They are ready to become familiar with the various input and output devices and commands. Because their writing now takes on added length, introduce a spell checker—a program that highlights potentially misspelled words. Experts suggest waiting until fifth grade to use a spell checker because the commands can be confusing and because students need to become adept at proofreading before relying on mechanical means. Since many fifth graders are doing quite a bit of research, they are also ready to use the word processor for note taking. For the same reason,

Personal Observation

While the plan to teach total word-processing skills by the end of sixth grade sounds ambitious, the only limiting factors are school-wide cooperation and facilities. The students are ready, even if some teachers and administrators are not!

they need to learn underlining commands and various options for printing.

Sixth Grade

Sixth graders are ready for innovative use of the computer. They can write a complete research paper, including documentation. Because their papers are longer, they are ready to learn the search functions as well as the search and replace commands. Formatting is the logical next step, including both on-screen formatting and embedded format commands. Thus, by the end of sixth grade, students can have full control of the word processor.

Comments/Notes:

Classroom Management

Word Processing in the Elementary School

Brief Description

Word processing offers advantages both to students and teachers in the elementary language arts classroom. Additional classroom management strategies, however, are required for using computers.

Objective

To enhance the language arts classroom with the use of word processors; to maintain classroom discipline and orderliness while using the equipment; to help students focus on the task at hand.

Procedures

The following eight suggestions will smooth the way for using word processing in the elementary language arts classroom:

1. Limit computer time to 20-minute segments. Students can make revisions on the printed draft and enter these changes later. Not all writing needs to be composed at the keyboard.
2. Use a sign-up sheet for computer time. You need to be able to monitor who is using the computer, how often, and for how long. Keep in mind, however, that not all students will want to use the computer.
3. Set up a schedule with prescribed times for use. Need may determine whom you schedule.
4. Discuss your students' texts on the monitor as they are writing. Students can try out different approaches on the screen—revise, move, delete, and restore.
5. Teach only simple commands. Don't make the computer a burden to use.
6. Encourage peer editing while text is on the screen.
7. You can avoid disk-management problems, such as students crashing disks or several students needing the same disk at the same time, by providing each student with his or her own disk.

Source

ED 246 449

Jacoby, Adrienne. "Word Processing with the Elementary School Student—A Teaching and Learning Experience for Both Teachers and Students." Paper presented at the Spring Conference of the Delaware Valley Writing Council and Villanova University's English Department, 1984. 8 pp.

Personal Observation

These suggestions are appropriate whether you have one computer per classroom or one computer per student. Granted, the scheduling is easier if you have multiple computers, but some classroom management strategies are important whether you have many machines or few.

8. Allow students to correct one type of error at a time. For instance, students may first correct their spelling errors. Then you may choose to help them with mechanics. Make a new printed copy after each set of corrections so that they can see, and have a record of, the development of their texts.

Comments/Notes:

Getting Started

Plans for Teaching Writing with Computers

Brief Description

When you first decide to teach writing with computers, you must do some initial planning for the course. The five steps presented here lead you through the planning process.

Objective

To design a general plan for teaching writing with computers.

Procedures

1. Familiarize yourself with the computer lab and the equipment. Not only must you know how to turn on the machines and boot up the programs, but also you must understand the idiosyncracies of individual machines and their relationship to the printer(s).

2. Evaluate the physical layout of the room and how both teaching and learning styles can be adjusted to the environment. The number of computers will determine most of what you can or cannot do: individual work, group work, whole class work.

3. Choose a word-processing program carefully. Base your choice on what features you want available to your students and, of course, on what is affordable.

4. Enlist the help of a lab assistant, another teacher, or someone who can help in the first few sessions while students are becoming familiar with the hardware and software. Without help, you may find yourself stumped over some simple problem, or you may find yourself scurrying from computer to computer in a mad rush to maintain a semblance of classroom control. You do not want to become a computer teacher instead of a writing teacher. Keep your eyes on the goal.

5. Decide precisely what you want to accomplish with the computers in relation to course goals and student performance. Do not lose sight of the sound educational objectives you have always had just because new technology offers alternatives. Choose from the following three purposes and/or goals of computer-assisted instruction (CAI):

Source

ED 294 642

Baxter, Barbara C. "Teaching Basic Writing with Computers." Paper presented at the Southeastern Conference of English in the Two-Year College, 1988. 10 pp.

Personal Observation

Although common practice does not follow this suggestion, the most practical way to set up a computer center for language arts instruction is to select first the software most suitable for your instructional purposes and THEN buy the hardware necessary to run it. It's a hard-learned lesson, but one that teachers everywhere are learning—often too late: sometimes the wrong, expensive hardware severely limits suitable choices of the most successful word-processing software.

A. Programmed grammar instruction

Most grammar instruction programs are little better than traditional workbook exercises with the exception that they give immediate feedback.

B. Editing or correcting

While the computer is no miracle worker or transformer of bad habits, most word-processing programs ease the editing job. Peer editing is also facilitated by the computer.

C. Invention, organization, development

The computer is superb for encouraging and enhancing invention, development, and organization. Some programs include questioning strategies for student response that nudge students toward effective prewriting activities. Virtually all word-processing programs include a MOVE command that facilitates reorganizational strategies; when students need to further develop their writing, they can do so with ease.

Comments/Notes:

Computer Software

Choosing Software for Your Purposes

Brief Description

The computer can be used three ways to teach English: as a tutor, as an interactive program, or as a blank page on which to compose. The intended use determines the kinds of hardware and software necessary.

Source

Withey, Margaret M. "The Computer and Writing," *English Journal*, v72 n7 Nov 1983, pp. 24-31.

Objective

To identify three approaches for which computers can be used in the teaching of English.

Procedures

Approach 1: The Computer as Teacher

To use the computer as a teacher is to use it to correct errors or improve basic writing skills in grammar, mechanics, and usage.

For this approach, choose software that can detect spelling errors, provide drills, and signal usage errors. The faults are twofold: students learn to ignore the stimuli (the buzzes, beeps, and other "encouraging" audio and video signals), and they become passive.

Approach 2: The Computer as Interactive Program

Use the computer as a tool for interaction to stimulate student dialogue.

For this approach, choose sophisticated software packages that assist students with the prewriting process. Some programs, for instance, ask students to respond to a series of general questions and prompts.

- Write several phrases that describe your subject.
- Give four or five reasons to support your idea.
- Explain what you mean.
- Give several examples.
- In what order can your reader best learn about these ideas?

Personal Observation

Wherever possible, choose the software *before* you choose the hardware. Because every piece of software is compatible with only certain hardware, you may limit your approaches in the classroom by buying hardware too early. For instance, if you want a sophisticated word-processing program, you may need either a hard disk drive or a dual floppy disk drive. Choosing the hardware first restricts your options, sometimes severely.

Thinking with an interactive program is like brainstorming by yourself. The disadvantage: computers cannot evaluate the quality of responses.

Approach 3: The Computer as Blank Page

Use the computer as a blank page by using it as a word processor.

Professional writers in the world of business and literature most often use this approach. To follow their lead, choose the best word-processing software available for your students' age and ability. Mature students who have keyboarding skills will respond best. The advantage: the word processor gets students away from revising at the word level. The disadvantage: students must learn to manipulate the software.

Comments/Notes:

Classroom Organization

Setting up a Large-Screen Monitor

Brief Description

In order to set up a large-screen monitor so that an entire class can read the screen, you will need special equipment.

Objective

To set up a large-screen monitor for classroom viewing.

Procedures

When teaching sentence combining or a composing process, the computer provides a superb instructional aid. Using its word-processing capabilities is faster than writing sentences on the chalkboard, neater than erasing, and clearer than drawing multidirectional arrows. Set up a large-screen monitor so that the entire class can see the computer screen as clearly as they can see the chalkboard.

1. You need a way to attach both the small monitor and the large monitor to the keyboard unit. Why? You need to see the small monitor as you type, while the class watches the large monitor.
2. Use a cord that will attach three ways. Two of these link the keyboard and small monitor. The third goes into the large monitor. The female end is plugged into the three-way cord from the keyboard; the male end goes into the proper slot on the back of the monitor.
3. So that students can read the monitor, you also need a 40-column display. Remove the 80-column card from the keyboard unit unless you are using a word-processing program that enables you to turn off the 80-column capability.
4. Whenever feasible, also give students hard copies of the material you will be using on the computer.

NOTE: Projectors that will project the image from the monitor onto a screen are now available, but they are expensive.

Source

Wright, Anne. "Computers as Instructional Aids." Version of a paper presented at the Spring Conference of the Greater St. Louis English Teachers Association, 1986. 6 pp.

Personal Observation

Large-screen monitors are excellent teaching aids when introducing new word-processing procedures or the use of a new piece of software. Use the large-screen monitor for instruction before students go to their own computers. Or, if you can have a large-screen monitor in the computer lab, use it as students work through a new procedure with you.

Classroom Management

Scheduling Computer Time

Source

ED 249 520

Christensen, Linda, ed., and others. *A Guide to Using the Computer in the Writing Process.* Wisconsin University, Department of Curriculum and Instruction, Madison, WI. 1983. 58 pp.

Brief Description

Depending on the number of computers and the number of students you have, scheduling computer time raises a number of questions. Alternate means of scheduling may solve your problems.

Objective

To make the most efficient use of computer time; to provide the greatest opportunity to the greatest number of students to use computer facilities; to work within the constraints set by administrative and financial dictums.

Procedures

Choose from among the following alternatives for computer time scheduling:

1. Total class instruction makes sense if you can have 25 students viewing a 21-inch monitor or a large portable screen.

2. Timed-use relay offers an alternative if you assign individuals or pairs of students to the computer terminal for a specific period of time. To avoid confusion and delay, explain to students the order in which they will go to the computer. The program and timer are reset by each student at the beginning of their individual work sessions.

3. A block-time format of 20- to 30-minute slots can schedule time for every student in a classroom on a weekly basis.

4. A non-schedule format allows students to sign up to use the computer when formal classroom teaching is not in progress. The times may include before and after school, during study periods and lunch breaks, and, the administration willing, on weekends. You will need to offer guidance so that all students have the opportunity to participate.

5. Some schools permit students to take computers and software home for evening or weekend use. Be sure to consider insurance matters and other school policy before you accept the responsibility of this kind of scheduling.

6. The best thing to do is to acquire more computers. Some national hardware producers are eager to donate their machines in return for a promise to use their software or for the sake of the good publicity. Some local purveyors also prove generous for the same reasons. Go ahead and ask: the worst they can do is say no.

Comments/Notes:

Personal Observation

Using collaborative learning techniques also offers alternatives to the scheduling problems. Sometimes three students can work successfully at one terminal if they are doing peer editing, group writing, prewriting, or similar group activities.

Computer Lab

Help for Students with Writing Problems

Source

Hancock, Charles R. "Baltimore City Schools Use Computers to Teach Writing," *Calico Journal*, v2 n3 Mar 1985, pp. 13-16.

Brief Description

In the course of working with students with severe writing problems, teachers in Baltimore developed a computer lab geared specifically to the needs of their special students.

Objective

To equip a computer lab to meet the needs of students with severe writing problems; to operate the computer center on a schedule compatible with students' schedules.

Procedures

The computer lab that helps writers with severe problems fosters hands-on activities, including the following:

Keyboarding skills	Editing activities
Drill and practice	Prewriting activities

Courseware can be utilized in the following ways:

Tutorials	Applications
Drill and practice	Simulations
Instructional games	Problem solving

Keep the computer center open during the entire school day and before and after school. If you schedule entire classes into the center, and you have more students than computers, arrange the computer center by designated areas: assessment, computer activities, skill development, motivational activities. While some students work at the computers, others work with print and non-print materials.

Personal Observation

Using the computer selectively as a tool integral to language arts instruction generates a high motivation in most students. We must, however, always make sure that the technology supports our teaching, not vice versa. Within the framework of a single class, using varied approaches to computer-assisted instruction (tutorial, drill, prewriting, problem solving, etc.) enhances the attraction of the tool and supports good educational theory.

Learning-Disabled Students

Teaching Ideas for LD Children

Brief Description

Certain instructional guidelines will help learning-disabled (LD) students compose more comfortably and effectively at the computer.

Objective

To help LD students feel comfortable when composing at the computer; to help LD students overcome the mechanical complexities of working with word processing; to assure successful instructional activities for LD students.

Procedures

Before you begin working with learning-disabled students in the classroom, consider the following guidelines, drawn from two years of research on word processing. Use these guidelines as you create your own activities.

1. Identify writing strengths and problems before you have students work on the word processor. The students' individual strengths and weaknesses will dictate how you might use word processing with them.
2. Teach your students machine skills at the beginning. Students need to use both hands on the keyboard, the left hand for the left side of the keyboard and the right hand for the right side of the keyboard.
3. Have students use the word processor for composing. The revision/editing features make the computer an appealing composing tool for LD students.
4. If your students are new to word processing, provide them alternatives to revising on the computer. Pair an "author" with a "typist," or work with the student yourself, letting the student take the author role while you act as typist.
5. Save editing for last. Suggest that students insert an asterisk (*) by an uncertain word or phrase and come back to it later.

Source

ED 296 492

Morocco, Catherine Cobb, and others. *Teachers, Children and the Magical Writing Machine: Instructional Contexts for Word Processing with Learning Disabled Children. Final Report.* and *"I Know What to Say!" Writing Activities for the Magical Machine.* Education Development Center, Inc., Newton, MA. 1987. 202 pp.

Personal Observation

Because writing at the computer is more "visible" than other means of composing, LD students may be reluctant to compose at the keyboard. Using the guidelines above, however, will ease them into an activity to which most respond well. Because illegible handwriting is no longer a factor, because revising is no longer a painstaking recopying procedure, and because collaborative learning can be part of the instructional technique, instruction in the LD classroom can benefit from computer technology.

6. Respect students' need for control over the content of their writing. Remember that their ongoing composing process is highly visible on the screen, a more public activity than most are accustomed to experiencing. That very visibility, however, gives you opportunities to reinforce and appreciate the student's writing process.

7. Time your interventions according to the student's stage in the writing cycle: how they write, what they write, and the rules for correct and effective writing. Focus on "how" during any new stage: generating ideas, planning, reviewing, revising, editing. Focus on "what" when students begin to generate their own ideas. Focus on "correct" at the final editing stage.

Comments/Notes:

Teacher-Student Conferences

Conferencing at the Computer

Brief Description

The computer as word processor offers golden opportunities for more frequent student conferences, but simultaneously, it causes real scheduling headaches. Working through the alternatives can enrich the classroom-à-la-computer-lab atmosphere.

Objective

To overcome the scheduling pitfalls of individual conferencing in the computer lab; to enrich the conferencing process by use of the computer as word processor.

Procedures

Suggestions for individual conferencing in the computer lab include these ten successful techniques:

1. Hold two conferences simultaneously. Seat yourself between two students with whom you are working, each at their own keyboard. This arrangement allows each student to make revisions on the spot without costing you double the time as you watch both mechanical operations. Simultaneously you become one step closer to each student's writing process. As a result of dual scheduling, you can plan 15-minute conferences for eight students an hour rather than four.

2. Have your students bring a paper copy of their texts to the conference. You can read paper copy holistically, as opposed to on-screen text that requires scrolling.

3. Foster interaction between the two students during the conference.

4. Make the students understand that they must prepare for the conference. Part of the preparation includes bringing a paper copy. In addition, require that your students be familiar enough with their work that they can easily find the passages they wish to discuss.

5. Allow extra time for computer conferences. By scheduling two students per time slot, however, you will still be able to complete the total conferencing process in the same time as you did without the computer.

Source

ED 258 195

Nickell, Samila Sturgell. "The Best of Both Worlds: Writing Conferences on the Computer." Paper presented at the 36th Annual Meeting of the Conference on College Composition and Communication, 1985. 13 pp.

Personal Observation

Doing two conferences at once encourages positive peer critique and helps students identify audience. Responding to another's writing helps develop a more critical eye for one's own work.

6. Encourage students to prepare multiple versions. Then the three of you can discuss stylistic, organizational, and/or technical successes of each version. This approach combines peer review and peer editing with teacher-student conferencing.
7. Take time to discuss the students' writing processes.
8. Hold the conferences late enough in the semester so that the students will be adept at using the word-processing program and will not waste your time fumbling with commands.
9. Allow the students themselves to manipulate the word-processing program, no matter how well or how poorly they do it. Reassure them that you are not there to evaluate their skills on the keyboard.
10. Noise in the computer lab won't go away, so ignore it. It's more important for students to have collaborative opportunities than to have a quiet lab.

Comments/Notes:

Teacher-Student Conferences

Computers and the Writing Process

Brief Description

Face-to-face, teacher-student interaction is more effective than written communication. Whether you are using a single computer in the classroom as a learning station or using a bank of computers in a lab, you can increase the opportunities for teacher-student conferencing.

Source

Wheeler, Fay. "Can Word Processing Help the Writing Process?" *Learning*, v13 n7 Mar 1985, pp. 54-55,58, 60,62.

Objective

To expand opportunities for teacher-student conferencing; to make the revision process easier for students; to elevate the revision process from the word level to the idea level; to address grammar, mechanics, and usage not as editing skills but as proofreading skills.

Procedures

Either in the classroom with a single computer or in a lab with a bank of computers, conference with students during prewriting activities. Encourage them to discover interests, form lists, brainstorm, narrow topics, and organize. During your first conference, ask students to talk to you about their topics. Respond not with criticism or correction but only with summaries, restatements, or further questions.

Continue impromptu conferences as students complete paragraphs or drafts. In your classroom, you can quickly read an on-screen draft while other students continue seat work or group work. In a lab situation, you can move quickly from one station to another, reading directly from the screen, answering questions, asking questions, or summarizing what you have read.

As students approach a final draft, ask for a paper copy of the text. Use this "hard copy" for additional conferencing, asking about final organizational plans, other editing options, and proofreading activities. At this point, students should concentrate on improving writing style, revising for meaning, and adhering to writing conventions.

Personal Observation

Don Graves, Nancy Atwell, and others suggest that the conferencing procedure be a series of short (3-minute) conferences that are student oriented. Allow the writer to name the topic that he or she wishes to explore during the conference. Early conferences go best when they are exclusively conversational and focus on ideas rather than on written output, such as rough drafts or outlines.

Comments/Notes:

Student Writing

Desktop Publishing in the School

Brief Description

Desktop-publishing tools have a wide variety of purposes throughout the school. For the English department, they can be the answer to financial woes associated with a school magazine. With these tools, publishing is within the range of all students, not just the literary elite.

Source

Stanley, Milt. "Desktop Publishing," *Computing Teacher*, v14 n3 Nov 1986, pp. 46-49.

Objective

To produce a wide variety of cost-effective student publications; to include writing by all students; to illustrate the publications with suitable graphics.

Procedures

Justify the cost of the desktop-publishing tools: word processors, graphics packages, page-assembly programs, image digitizers for inputting line art, hard disk drive, and laser printer. For schools that already have some of the hardware, costs may be within reason. For schools that have not yet purchased computer equipment, it is nice to know that the machines are cheaper, better, and more powerful now than they were a few years ago.

Make clear the use of desktop-publishing tools for the entire school: administrative offices, PTA, athletic program, all academic departments, extra-curricular activities.

Emphasize the importance of the school's public image as affected by school publications, student or otherwise.

Generate an atmosphere in which students can complete the final step in the writing process: publication. Students may choose to produce a wide variety of publications:

collections of fiction

collections of editorials and essays

an anthology of Haiku poetry

movie, sports, and other entertainment reviews

a collection of favorite recipes

Personal Observation

What is your image of the typical school publication? We have all seen typists laboriously typing on an assortment of typewriters, each with a different type style. The finished product, run off on a duplicating machine or photocopied on slick, curly paper, was nothing to be proud of. Desktop publishing offers a quick and easy alternative to the traditional methods. But it does require considerable time to become a proficient desktop publisher. Good layout requires some knowledge of graphic design. Fortunately, most page-assembly systems use a what-you-see-is-what-you-get—WYSIWYG (pronounced "wizzywig") format. WYSIWYG makes page composition easier.

newspapers

newsletters

literary magazines

theme magazines

Students may collaborate with students in other schools to publish a magazine, with the contributing authors sending their texts to the publishing school via modem.

Comments/Notes:

Computers in the Elementary Language Arts Classroom

Basic Word-Processing Skills

Learn-as-You-Go Approach

Source

Newman, Judith M. "Online: Some Reflections on Learning and Computers," *Language Arts*, v61 n4 Apr 1984, pp. 414-417.

Brief Description

While some adults seem to feel that they need to know everything about a computer and the software before they begin, students are often quite happy learning a procedure only when they have a need for it. The younger the student, the more accurate this observation seems to be.

Objective

To teach word-processing procedures as students need them.

Procedures

Initially, teach students only the essentials:

1. How to turn the machine on
2. How to place a disk in the drive and load the program
3. How to begin entering text

As students have questions, teach them what they need. For instance, elementary students very soon want to know the following:

1. How to make capital letters
2. How to correct typing errors
    a. How to erase
    b. How to move the cursor across text without erasing
    c. How to insert characters

As you teach these new procedures, write the instructions on a notepad to be kept beside the computer so that students can refer to the instructions as needed.

As students write longer pieces and fill the screen, they will soon want to know how to move the cursor to the top and the bottom of the text.

When the written product is complete, students need to know the next steps:

1. How to print
2. How to save the written work on a disk

Comments/Notes:

Personal Observation

Having worked with several different word-processing software packages, I have discovered that I am a kinesthetic learner—I learn by doing. I may read the instructions in the manual for a given procedure, or a colleague may offer a detailed explanation; but in the final count, the explanation never registers on my mind until my fingers do it. Only when I need and use the technique do I remember it. Is this so very different from learning grammar, mechanics, and usage rules? Students learn best when they feel the need!

Sentence Combining

Basic Word-Processing Skills

Source

Bradley, Virginia N. "Improving Students' Writing with Microcomputers," *Language Arts*, v59 n7 Oct 82, pp. 732-738.

Brief Description

Using the computer to introduce sentence combining allows students to work quickly and thus manipulate more models and/or examples that illustrate a wide variety of sentence-combining techniques. Students who must laboriously write out every sentence combination soon drift into boredom.

Objective

To teach students the minimum number of commands necessary to form sentence combinations; to introduce a variety of sentence-combining techniques.

Procedures

Activity 1

Introduce the minimum number of commands necessary to complete a sentence-combining task:

1. How to move the cursor
2. How to insert a character, word, or line
3. How to delete a character, word, or line

Dictate a sentence for students to enter: "My name is Sam."

- Delete "Sam" and insert your own name.

Dictate six or eight sentences for students to enter. Direct students to move the cursor up, down, left, and right to specific points in those sentences.

Dictate two sentences, or ask students to write two sentences which they must join into a single sentence.

Activity 2

Prior to class, prepare a sentence-combining exercise and save it on disk. Load the exercise into each computer prior to class. (This approach saves a significant amount of class time.) Formulate the sentences in pairs similar to these examples:

1. That bike belongs to me.

   It has a flat tire.

2. The officer drove a squad car.

   The officer wore a blue uniform.

   The car had flashing lights.

3. The fans were disappointed.

   The fans were in the bleachers.

   The fans shook their heads.

   The fans started to leave.

4. John read the mystery story.

   Sarah recommended the mystery story.

When class begins, ask students to read the exercise and combine the first pair of sentences.

Ask volunteers to share their results. Decide as a class which is the best combination, and why.

- Revise your combined sentence as necessary.
- Work through the remaining sets of sentences in the same way.

You may choose to print out final copies of the combined sentences for evaluation.

Because students' work does not affect the original exercise file stored on the disk, you can repeat the activity with a later class without repeating your set-up work.

Personal Observation

Lack of keyboarding skills is initially a problem for students. The hunt-and-peck method is, of course, tediously slow and wastes valuable classroom/computer time. As a result, preparing exercises in advance, preparing a file on disk, and retrieving that file at the beginning of class speeds the immediate instruction at hand. It is worth noting, however, that school districts serious about teaching computer and word-processing skills will want to provide early elementary grades with software that teaches keyboarding. While students may be temporarily slowed by the correct fingering, the practice will ultimately make them reasonably comfortable—and considerably faster—at the keyboard.

Beginning Writing

Word Processing in Grade One

Source

"Word Processing in the Grade One Classroom," *Language Arts*, v61 n8 Dec 1984, pp. 804-812.

Brief Description

First-grade students who write at the computer compare successive drafts and thus become more critical of their writing. They write longer pieces with more revision and more attention to detail and, because they see their work in print, they soon come closer to standard spelling than do children who write with pencil and paper.

Objective

To encourage writing among first-grade students; to introduce the writing process (including revising, editing, and publishing); to improve transcribing skills; to compare successive drafts.

Procedures

On the first day of school, give your students writing folders, and tell them that they are expected to write every day. They will, of course, use invented spellings; children who cannot produce readable words may need their work transcribed.

After about two months, allow your students to enter their stories on the computer. Have their work from the previous day already loaded on disk and visible on the screen.

Remind students to reread what they have written. They can then continue to write or begin to revise. Permit your students (within reason) to stay at the computer until they finish. Note, however, that most students will spend more time writing at the computer than they do with pen or pencil.

Provide several conferences during the course of the composing. During the conference encourage your students to include more detail, make more and better revisions, and be more critical of their work.

Print out a copy of each day's writing. Include it in the student's writing folder.

During conferencing, ask the students to compare successive drafts to see how the drafts changed.

Results

The following effects may result from this endeavor:

1. Because the printed copy looks professional, students take personal pride in the written product.
2. When the computer is not available, students will continue to insert, delete, and rewrite on paper—an indication that the techniques practiced on the computer do, in fact, carry over into paper-and-pencil writing.
3. The computer enables students to take risks because they can always change their minds. When they do, there are no erasure marks, no cross-outs, no arrows to remind them of the change.
4. Young writers gain confidence in their writing.

Comments/Notes:

Personal Observation

The very fact that students will spend more time writing at the computer is evidence of its motivational factor. "More time" may indicate longer pieces of writing and/or more careful attention to detail: content, sentence structure, spelling, whatever. In either case, the "more time" will most likely translate into "better." The computer makes writing easier for children who still must struggle to form perfect manuscript letters.

Collaborative Learning

Computer Composing for First Grade

Source

ED 273 979

Heap, James L. "Collaborative Practices during Computer Writing in a First-Grade Classroom." Paper presented at the 67th Annual Meeting of the American Educational Research Association, 1986. 34 pp.

Brief Description

First-grade children who become quickly adept at using the computer as a word processor can be "helpers" for students who want to write but who find the mechanical functions intimidating.

Objective

To help first-grade students begin composing for an audience; to integrate effectively all the language arts in a composing situation; to provide an acceptable collaborative learning situation when only a single computer is available in the classroom.

Procedures

Arrange the computer facilities on a student desk with two or three chairs in a semicircle around the desk. This "computer center" can be supervised most easily if it is near your desk.

Appoint a designated writer whose turn it is to write. The designated writer is responsible for the actual composing. He or she is seated at the keyboard and is responsible for input, and may arrange or rearrange text.

Allow the designated writer to select a helper. Later in the year, as students gain the social skills necessary to work effectively in collaborative situations, the designated writer may choose two helpers. The helper acts as a technical advisor. While the technical advisor may offer suggestions for composing and content, he or she is ultimately responsible only for the arrangement of text. Seat the helper to the right of the writer. If there are two helpers, seat one on each side of the writer.

When the designated writer and helper(s) agree that they are happy with the composition, offer suggestions for revisions.

Permit the writer and helper to implement your suggestions.

Prepare final copies for the entire class. Ask the writer to read the final composition aloud.

Personal Observation

During the course of working together, first-grade students involved in collaborative writing at the computer tend to use all the language arts skills. They compose together—reading aloud, verbalizing, and checking letter by letter the entire input. They listen to one another. Hence, the use of the computer has a value that transcends development of the single language art which computer writing would otherwise appear to serve.

Comments/Notes:

Oral and Writing Skills

Language Experience Approach

Source

Bradley, Virginia N. "Improving Students' Writing with Microcomputers," *Language Arts*, v59 n7 Oct 82, pp. 732-738.

Brief Description

The language experience approach improves reading and writing skills, and it brings oral and written language together in the classroom. The underlying philosophy is that children can learn to write and read their own oral language more easily than they can learn to write and read material less relevant to them. By substituting the computer screen for a wall chart in the process, you can work more quickly and immediately produce a printed copy.

Objective

To provide the opportunity for students to give oral responses to a stimulus; to write the students' sentences for them to read orally; to provide a printed copy which they may take home to read.

Procedures

Present children with a stimulus: a toy, a cooking experience, a trip to the fire house. Seat the children in a semicircle in front of a large monitor connected to the computer. Seat yourself at the keyboard, arranged at an angle to the screen, so that both you and the children can read the screen.

As children call out sentences, enter their words on the screen. You will find that because of the speed of the computer (as compared with using a marking pen to put manuscript on a wall chart), you can capture all the words spoken by all the children.

When one child speaks a sentence and you type it on the screen, ask another child to read the sentence aloud.

Ask students if they want to make any changes. They may want to add some words or sentences, delete some words or sentences, or change the order of some words or sentences. They may talk about sequencing.

Ask the students to read the entire story aloud. Print final copies for each student to take home. Encourage students to read the story aloud to their parents or siblings. Some students may wish to illustrate the story.

Personal Observation

Giving students the opportunity to see their own words in print motivates them to want to learn to read and write. This language experience technique provides a suitable introduction for first-grade students to the idea of word processing—that words and sentences can be moved, that revisions are not only possible but important, and that the writing process is a thinking process directed by purpose and audience. First graders who get insights into these concepts are well along the road toward becoming successful writers.

Comments/Notes:

Cooperative Learning

Story and Dialogue Writing

Source

Newman, Judith M. "Online: Reading, Writing, and Computers," *Language Arts*, v61 n7 Nov 1984, pp. 758-763.

Brief Description

Using the word processor, students can take part in collaborative learning activities by writing for and responding to others to develop dialogue. Students then perform the dialogue in Readers' Theater fashion.

Objective

To provide the opportunity for students to write for and respond to peers; to develop story lines and dialogue; to dramatize the dialogue.

Procedures

Activity 1

Ask your class to set up a scenario involving two or three people and to decide on names for the characters. Then ask your students to suggest a few brief statements that characterize each member of the dialogue.

Group students in twos or threes (depending on the number of characters in the scenario) and assign each group to a computer.

Each student is to assume the role of one character, entering the dialogue as his or her turn comes in the progression of the scenario. When the groups have finished, ask them to present dramatic interpretations of their scenarios.

Activity 2

This activity works well with networked computers. A local area network (LAN) usually consists of several computers linked together in one room and allows students to share their work from individual computer terminals. Ask your class to set up a scenario involving two or three people. Do not assign names for the characters.

- Select a name for your character, and use that name to identify the character's contribution to the dialogue.
- Collaborate with one or two others (depending on the number of characters in the scenario) to invent a dialogue.

When the groups have finished, ask them to present dramatic interpretations of their scenarios.

Activity 3

Wordless picture books may serve as a point of departure for writing. Ask your student groups to write a narrative collaboratively, perhaps sprinkled with dialogue, to accompany the story as "told" by the pictures. Ask them to share their differing versions of the story.

Comments/Notes:

Personal Observation

While networking permits a wide variety of activities, many of the same activities can be achieved by asking students to move from station to station. As teachers, we can be inventive in our ways of dealing with the wide variety of facilities available—or unavailable—to us. New tools suggest new methods!

From Talking to Fiction

Using Dialogue to Write Stories

Source

ED 296 492

Morocco, Catherine Cobb, and others. *Teachers, Children and the Magical Writing Machine: Instructional Contexts for Word Processing with Learning Disabled Children. Final Report* and *"I Know What to Say!" Writing Activities for the Magical Machine.* Education Development Center, Inc., Newton, MA. 1987. 202 pp.

Brief Description

Students who use the computer collaboratively to compose dialogue can then write effective stories with realistic dialogue. As a result of the prewriting collaborative activity, individual story characters more easily take on a clear point of view and a specific voice.

Objective

To compose dialogue through collaborative use of the computer; to use imagination and memory to develop voices for different characters; to focus on choosing and organizing words that convey a character's "point of view"; to use the dialogue as part of a short story.

Procedures

Explain to your students that they will spend time in class talking to each other—through the computer. Assign students to work in pairs at one computer or on networked computers. Tell them not to worry right now about correct spelling or punctuation: they will simply be talking. They may take on fictional roles. You may need to model role-playing for them.

Set up certain rules for the conversations. For instance:

- Take turns. Always hit RETURN twice to let your partner know when you are finished.
- Talk using only the computer.

Provide some starting lines for the conversations:

- I don't believe it.
- At last, it's over.
- What did you say your name was?
- Where is the key?
- I won't do that again.
- I don't know what you mean.

Give students ample time to develop a dialogue that helps suggest a story plot. At the completion of this prewriting activity, ask students to develop the story plot, establish the setting and other details, and write a short story.

Provide a revision strategy. When students are finished writing first drafts, they can read their drafts to a whole class or to small peer-editing groups. Students can respond to the following questions:

- What happened in the story?
- What did you learn about the character through what he or she said and how he or she said it?
- What did you like about the story?
- Do you have any questions about the story?

Give students the opportunity to use the responses to revise their stories. Then ask for a final copy and share completed stories with the class and/or with other classes.

Comments/Notes:

Personal Observation

Dialogue requires careful punctuation and paragraphing. Because the word processor allows students to make corrections easily, demand that punctuation and paragraphing of dialogue be perfect. Use peer editors to help students place punctuation marks correctly, emphasizing that most punctuation marks go inside quotation marks and discussing the exceptions. Use models to show that paragraphing marks a change of speaker; then ask students to omit the "he said/she said" after every line of dialogue, allowing the paragraphing to indicate change of speaker instead.

Descriptive Writing

Effective Written Communication

Source

Wheeler, Fay. "Can Word Processing Help the Writing Process?" *Learning*, v13 n7 Mar 1985, pp. 54-55,58,60,62.

Brief Description

By using a simple writing assignment, students decide if they can communicate effectively with their peers. Peer reader-editors suggest revisions.

Objective

To describe an identifiable object with the purpose of asking the reader to identify it; to revise as necessary according to peer observations.

Procedures

Give each student a shell with a number taped to it. Have students record their numbers on a class roster.

- Examine your shell and write a descriptive paragraph about it on a word processor.
- The description should be accurate enough that the reader can easily identify the shell.
- Print out a final copy of the description and save the text on disk for later revision.

Collect the papers and redistribute them, making sure that no student gets his or her own paper. Have students read to determine whether they can identify the shells. Before they make final identifications, however, ask them to pencil in an editorial question at the bottom of the page. The question may address some detail needed for positive identification. For example:

- What size is the shell? Is it closer to the size of an egg or a coffee cup?
- What color is the shell? Is it the color of vanilla ice cream or caramels?
- What is the shell's surface like? Is it full of ridges like corrugated cardboard or grainy like sand paper?

Return the papers to the writers.

- Incorporate the response to the question into your final draft.

- Prepare a final copy.

Redistribute the final copies to readers. Have students attempt to identify the shells.

- If you can't identify the shells, what necessary revisions would permit sure identification?
- Make whatever revisions are necessary.

Comments/Notes:

Personal Observation

Elementary students will enjoy making fantasy sculptures from modeling clay. When they have completed their sculptures, use the process above to follow the writing process. As peer readers continue to read and ask questions of the writers, a clearly identifiable description of the sculpture will emerge. For older students, you can substitute a variety of objects: lemons, simple geometric shapes (which readers must reproduce rather than identify), marbles, various kinds of nuts or cones, or decorated eggs.

Personal History

Writing Computerized Biographies

Source

ED 260 452

Archibald, Georgia, ed., and others. *New Routes to Writing K-8.* Revised Edition. Missouri University, Department of English, St. Louis, MO. 1984. 200 pp.

Brief Description

An assignment planned for grade three, the computerized biography writing works well for students in grades four through twelve. Functioning as reporters, students work in pairs to complete biographies of each other.

Objective

To include multi-language activities in the writing process; to recognize biography as a specific genre; to use the computer as word processor and as information source.

Procedures

Introduce interviewing techniques by modeling. Interview a student from another class in front of your class. Tape-record the session. Question samples: What do you like about school? What do you do on Saturdays? What makes you sad? Happy? Why?

Use the taped response to collaboratively compose a character sketch. If possible, use a large-screen monitor and enter the sentences as students suggest them. Revise on screen, composing a sketch with which students are comfortable. Print copies as a model for your students. Explain that any biography includes similar information in addition to vital statistics and personal history.

Read a biography to the class. Example: *Langston Hughes, Poet of His People* by Arna Bontemps.

Either allow students to select a partner or pair your students. Let them interview each other, take notes (preferably at the computer), and print copies of their notes.

Each student is to complete a personal-history data form on the computer. You can design a file that asks for information such as name, address, phone number, mother's birth name, father's name, place of birth, place(s) of residence, places visited, brothers and sisters, happiest moments, saddest moments, career preferences, attitude toward school, etc. These are the "vital statistics" that partners will use to assemble the "bare bones" of the biography. Have your students print out copies for their partners.

- Using notes from the interview and the data form, begin writing the biography of your partner. When the first draft is complete, print two copies, one for yourself and one for the subject of the biography.
- Exchange the biography first drafts, discuss them, and make revisions, additions, and/or deletions concerning your own life story.
- Then make revisions at the computer.

Peer-editing groups or other collaborative activities can follow up and finish this work. Share final copies with the class.

Comments/Notes:

Personal Observation

The multi-language strategy, using both oral communication and writing skills, suggests the real role of the computer: a writing tool. The tool is most effective here in storing, retrieving, and sorting information. The procedure incorporates good classroom management with technological opportunities.

Writing Development

The Computer as a Dialogue Journal

Source

ED 296 492

Morocco, Catherine Cobb, and others. *Teachers, Children and the Magical Writing Machine: Instructional Contexts for Word Processing with Learning Disabled Children. Final Report* and *"I Know What to Say!" Writing Activities for the Magical Machine.* Education Development Center, Inc., Newton, MA. 1987. 202 pp.

Brief Description

By using the computer as a journal to which you and/or your students respond, young writers can enjoy composing frequently for a specific, responsive audience.

Objective

To write frequently; to increase fluency; to respond directly to another person's ideas and questions in writing; to use a variety of kinds of writing.

Procedures

Model journal writing for your students. A large-screen monitor works best for this. Help students understand that journal writing uses "I" and can be a means of sharing the writer's own experiences, thoughts, and memories.

Provide some starter questions.

- Have you ever had a scary experience? What was it like?
- Who was/is your favorite teacher? What is he/she like?
- List some of your favorite foods. Which is best? Why?
- When did you first learn to ride a bicycle? What do you remember about the experience?
- Have you ever had a bad day when everything seemed to go wrong? What was it like?

Have students make their own journal entries on the computer.

Ask students to save their entries on a disk so that you can later retrieve and respond to them.

Prior to the next class, model a series of responses. Ask questions, express personal reactions, share similar experiences, or combine questions and reactions.

When students return, give them time to read your response. Explain that over the course of the semester, they and their readers will be having a conversation in writing. Then ask your students to

continue with another entry. The entry may respond to your comments and introduce another topic.

Depending on the time allotted, ask students either to save their entries on a disk or move to another computer screen to read and react to a classmate's entry. Suggest that the response may be one of the following:

a personal reaction

a question or two

a comparison to a similar/different personal experience

a combination of the above

Establish a routine in which, for instance, students know that every day they will make journal entries and responses during the first ten minutes of the class.

Comments/Notes:

Personal Observation

The dialogue journal activity is appropriate for almost any grade level at any ability level. By adjusting the allotted time, frequency, and expectations of the activity, you can use the journal concept to promote frequency of writing. In addition, it seems reasonable to assume that you could also share the disks from one class with another class (your own or one across the hall). Students can thus learn to respond and react to peers whom they may not know. The activity then becomes a quick-response correspondence similar to having pen pals. Better still, it imitates electronic mail without the expensive hardware and hookups!

Prewriting, Drafting, Editing

Writing the Personal Narrative

Source

ED 296 492

Morocco, Catherine Cobb, and others. *Teachers, Children and the Magical Writing Machine: Instructional Contexts for Word Processing with Learning Disabled Children. Final Report* and *"I Know What to Say!" Writing Activities for the Magical Machine.* Education Development Center, Inc., Newton, MA. 1987. 202 pp.

Brief Description

By using the following activity, you can help students develop personal narratives. The word processor works as a tool to enhance the prewriting process, the drafting process (especially in generating chronological order), and the editing process.

Objective

To tap the memory for richness of detail; to tell a personal narrative in chronological order; to include personal reactions.

Procedures

Help students get started by reading the following questions aloud, allowing 8-10 seconds between questions:

- Think of a time when you were smiling.
- Think of a time when you were laughing.
- Think of a time when you were angry.
- Think of a time when you were sad.
- Think of a time when you said goodbye to someone.
- Think of a time when you lost something.
- Think of a time when someone gave you something special.
- Think of time when you were happy.

Ask students to share memories with classmates. You may choose to use small group response or whole class response. The discussion is likely to elicit more memories. In an elementary classroom, ask students to bring in photographs or make drawings of the memorable time. During the next class period, invite your students to tell about their photographs or drawings.

- Move to your computer and make notes about one memory.
- Enter words, phrases, ideas which come to mind; you need not write sentences.
- Print a hard copy of the results of the brainstorming activity.

- Number the brainstorming details in chronological order. After that, you are ready to begin writing your personal narrative.

Give students ample time, probably several class periods. Ask for a hard copy of the last draft.

Use any of a variety of editing techniques. Students can work in editorial groups, with peer editors, or individually. If you are using editorial groups, you may wish to give each student one editing task most appropriate for him or her. If you are using peer editors, or if students are working individually, you may want to use an editorial check list:

- Is the story true? Did it really happen? Is it believable?
- Did the writer use "I" correctly?
- Did the writer tell how he/she feels about the experience?
- Did the writer tell things in order?
- What is most enjoyable about the story?
- What else would we like to know about the person or event being described?
- Is it clear what happened, when it happened, and to whom it happened?

Give students time to complete revisions and print a final copy. Share the final copies with the class using a bulletin board display (in the elementary classroom, use the photos or art work to accompany the final text), a class booklet or a bound edition for the school library, or the electronic publishing of "e-mail."

Personal Observation

For more advanced students, include the interview as part of the personal narrative. Ask students to interview someone connected with the memory—mother or father, sibling, relative, friend. Challenge your students to search for another point of view and to include this alternate viewpoint as a separate paragraph in the narrative. By using this follow-up activity at the completion of the original personal narrative, students can further enjoy the word processor's abilities. Without recopying, students can insert the new paragraph, alter the thesis sentence, and insert additional transitions to connect the new paragraph with the old.

Reading Instruction

Software in Elementary Remedial Reading

Source

Schiffman, Shirl S. "Software Infusion: Using Computers to Enhance Instruction. Part One: What Does Software Infusion Look Like?" *Educational Technology*, v26 n1 Jan 1986, pp. 7-11.

Brief Description

Software can never teach the entire lesson. As the teacher, present the lesson and use the computer and other resources to supplement, reinforce, and motivate. The goal is *not* to use the computer with every lesson taught, but to use it as an educational tool to enhance, as needed or appropriate.

Objective

To state the implied main idea in a reading section.

Procedures

Even if you have only one computer in a resource room, you can put up to five unmotivated students at that station.

Load the computer with a text-only (no color or graphics) simulation program. A simulation is a model of an event or situation in which the learner makes decisions and learns through observing the outcomes of those decisions. The following exercise is designed for a simulation of factors confronting cave dwellers trying to survive in prehistoric times.

Provide ample opportunity for students to respond. As students plot their strategies to stay alive, they are likely to be a little noisy; but they are READING—and with a purpose!

- Jot down a few notes so you can make better choices.
- Keep track of what enables you to make advances or confront setbacks.
- Discuss what went right or wrong.

When students finish the simulation, ask them to state the main idea. For a change, they will know!

Distribute library books on prehistoric times. Tell students that if they can tell you the main idea of each book by the next day that they may play the simulation again.

- After playing the simulation again, write a brief story about what it was like to live in prehistoric times.

A text-only simulation helps students focus on reading skills. Students show positive response even without the "bells and whistles" approach because they enjoy the simulation.

Comments/Notes:

Personal Observation

Using the computer as a focus for collaborative learning makes good use of sound educational practices and effective use of expensive equipment. As students work and learn together, those who find the machinery a threat can enjoy and respond to the computer's benefits without fear of yet another personal failure.

Word Processing

Teaching the Learning Disabled

Source

ED 262 408

Walshe, R. D., ed. *Writing Teaching and the Word Processor*. Primary English Teaching Association, Rozelle, Australia. 1984. 10 pp.

Brief Description

Based on the idea that one can write anything one can think and say, using word processors eases the way toward teaching learning-disabled (LD) students both to write and read. After all, students can read what they themselves write!

Objective

To free LD students from the negative self-image reinforced by their inability to read; to encourage LD students to read their own writing; to provide opportunities for LD students to produce a professional-looking piece of writing.

Procedures

With the word-processing software already booted up, help LD students learn the basics: how to move the cursor, how to erase, how to insert.

Allow students ample time to compose. Their writing will probably include idiosyncratic spelling and punctuation, and may be irregular.

Have students read their work aloud during the individual conference. Ask questions; ask students to say orally what they want to say in writing; resist criticizing or pointing out negatives—some mistakes are self-correcting as the process goes along.

Show students how to use the spell checker file. Provide the opportunity for students to develop and/or expand personal word lists. Use of the spell checker allows students to find spelling errors and correct them without leaving the telltale signs of cross-outs and erasures and without having to engage in laborious recopying.

When students feel comfortable with what they have written (maybe after several hours'—or even several days'—work), print a final copy. They will be thrilled with the professional appearance of their work.

Ask students to share their writing with the rest of the class.

Personal Observation

A major contribution of the computer as word processor seems to be that of overcoming negative self-image problems. With LD students, the word processor offers not only an individualized learning approach but also positive personal reinforcement. How? Many ways: separating poor handwriting from poor writing, setting up a write-to-read approach for frustrated readers, and offering a quick and easy way to "fix" writing for traditionally very poor writers. And finally, the word processor provides a vital tool that helps LD students feel at one with their peers. In a very practical sense, building personal self-esteem is more important than building writing skills. Wouldn't it be terrific to do both at once!

Comments/Notes:

Word Processing

Helping Students with Writing Problems

Source

Hancock, Charles R. "Baltimore City Schools Use Computers to Teach Writing," *Calico Journal*, v2 n3 Mar 1985, pp. 13-16.

Personal Observation

Students in a lab situation practicing similar writing activities usually grow more willing to revise. Revising no longer means recopying. Also, teacher-student conferencing at the computer provides timely feedback on students' responses to writing prompts, providing opportunities for reinforcing skills needed by weak writers.

Brief Description

Baltimore City Schools have used word processing to raise the achievement levels of their students. Students who learned to use computers discovered distinct advantages for writing better, especially students who had severe writing problems.

Objective

To help students analyze a writing prompt; to provide encouragement for revising and editing; to teach students to write for a specific purpose and audience; to show students how to produce a specific written text.

Procedures

Use the following plan with students who are familiar with the computer and with word-processing software:

- Read the following prompt. Follow the instructions carefully. If you need more information for your letter, make it up yourself. Use the correct letter format.

  Writing Prompt

  You ordered a portable telephone from a major appliance store's catalogue. You paid $74.95 for the telephone. You waited almost five weeks for delivery. When the telephone arrived, you noticed that the receiver was cracked and that a corner was chipped. The telephone appeared to have been dropped.

  You are unhappy. You have decided to write a letter and ask the company for your money back.

- Write a letter to the company in Chicago, Illinois. Before you begin writing, decide what information your letter must include. Then write your letter.

- Revise carefully. Be sure all necessary information is included so that the company can respond to your letter. Arrange the details in good order.

Middle School Students

Teaching Revision across the Curriculum

Brief Description

After only two weeks' practice with editing functions, students can compose on the keyboard and participate in editing groups. Soon they will be bringing writing assignments from other classes to complete at the computer! Revision becomes more thorough when the assignment has meaning beyond the language arts classroom.

Objective

To teach students to use the computer for revising; to apply these techniques to written assignments across the curriculum.

Procedures

Set aside four one-hour periods of instruction in the use of the software. *Bank Street Writer* and *Easy Script* seem to be the most frequently preferred word-processing programs for middle school students.

Spend one week practicing with sentence combining and paragraph moving activities. (See also the lesson on introducing sentence combining, pp. 26-27.)

Have students begin to write simple compositions during the third and fourth weeks of the program. You may want to develop prompts for composition assignments and enter these as text files. During this same time period, have students participate in editing groups.

Request that your students bring assignments from other classes so that they can apply revising techniques to these compositions.

When the assignments are more meaningful to students, they will make more complete revisions.

Source

ED 241 953

Stromberg, Linda, and Kurth, Ruth J. "Using Word Processing to Teach Revision in Written Composition." Paper presented at the 33rd Annual Meeting of the National Reading Conference, 1983. 11 pp.

Personal Observation

Some teachers prefer to teach their students to use highly sophisticated word-processing programs from the very beginning. Rather than *Bank Street Writer* or *Easy Script*, they will choose *WordStar* or *WordPerfect* (depending on the hardware). They claim that the extra effort in teaching the sophisticated software pays off in the long run. Students never have to learn another program in order to do more complicated tasks, and they never have to boot up a different program to make additional use of the computer. For instance, *WordPerfect* includes both an extensive dictionary and a thesaurus within the word-processing program itself.

Comments/Notes:

Computers and Writing Instruction for High School Students

Beyond the Classroom

E-Mail to Establish Cultural Audience

Source

ED 291 105

Schwartz, Jeffrey. "Using an Electronic Network to Create a Real Context for High School Writing." Narrative report for the National Council of Teachers of English Teacher-Researcher Project, 1987. 7 pp.

Brief Description

Two schools can hook up electronically with one another to give students immediate pen-pal type responses. Students learn to respect their audience and recognize how purpose and audience determine form and vocabulary. This approach is especially productive when two culturally different schools go on-line together.

Objective

To use an electronic mail (e-mail) system, arranging students to write to a specific audience; to expand the context for classroom writing; to broaden understanding of cultural diversity; to help eliminate stereotyped images of other people; to practice a variety of written forms.

Procedures

To become involved in e-mail exchanges, you will need microcomputers, a modem, and an e-mail service.

Encourage students to write in a variety of forms: notes, letters, stories, interviews, drafts, transcripts, summaries, revised essays, plans, questions. Taking part in e-mail exchanges with another school presents your students with audiences ranging from one person to multiple classes. Their writing can range according to their needs and wishes: college applications, family oral histories, personal narratives, book reviews, and on-line romances.

Engage your students in the examination of tone. The electronic correspondence has no voice of its own! Word choice suddenly takes on prime importance in a real way.

Ask students to react to specific word choice, sentence patterns, and other cultural references apparent in individual pieces of writing. Their reactions will predictably raise questions that will trigger the next communiqué.

Personal Observation

The Postal Service has been used for years to achieve the same end. But e-mail is much faster: to mail a piece of writing and receive a response can take two weeks, while an e-mail exchange rarely exceeds 24 hours. Students not only receive immediate feedback, but they also have 15 times more opportunities to write in that same two-week period.

E-mail is expensive, but it's worth it. To acquire e-mail for your school system, you can apply to those "grant givers" who are willing to tune in to projects that deal with the electronic media, encourage the understanding of cultural diversity, and promote literacy. Ask your local librarian to direct you toward resources for grant applications, such as *Getting a Grant in the 1980s: How to Write Successful Grant Proposals* by Robert Lefferts.

If e-mail is not in your economic picture, a modified version of e-mail is possible for a lot less money and a little more effort. Make arrangements with your electronic pen-pal partner school to trade "e-mail disks" each day. Capture the messages on disk, trade overnight for the disk at the other school, and allow your students to enjoy an electronic exchange that will seem almost like the real thing.

Comments/Notes:

Group Work

Software Infusion in High School Writing

Source

Schiffman, Shirl S. "Software Infusion: Using Computers to Enhance Instruction. Part One: What Does Software Infusion Look Like?" *Educational Technology*, v26 n1 Jan 1986, pp. 7-11.

Brief Description

The low quality of much software, the lack of sufficient software and/or hardware, the high cost of hardware and software, and the lack of teacher training will continue to plague English departments for a long time. A clear vision of what it means to use a computer as a teaching resource can help to establish clear-cut goals.

Objective

To work effectively in a computer lab writing workshop where there are twice as many students as computers; to provide a cost-effective, time-saving way for students to achieve the final step in the writing process: publication.

Procedures

Divide the class into two groups. Group 1 will work at the computers typing first drafts. Group 2 will work on another assignment at empty tables.

Alternate the groups. When Group 1 students are finished with their first drafts (probably after two class periods), direct them to meet in peer-editing groups, probably no more than four to a group. As peer editors, students offer suggestions for improving one another's work: content revisions; stylistic changes; and grammar, mechanics, and usage corrections.

Group 2 students work at the computers entering their first drafts. As peer editors, students should offer suggestions for improving one another's work.

Ask each student to produce a final, polished, neatly printed copy of his or her written product. Bind these final drafts in a class anthology for home and library.

Because word processing makes revision and editing easy and enjoyable, computers are making a significant contribution to students' mastery of writing.

Personal Observation

Peer editing works best when students have been trained to be able peer editors. If one assumes that students already know how to respond and offer suggestions to fellow classmates, they will be frustrated first-time peer editors. Editing is a skill that must be mastered, like writing. A few simple suggestions:

1. Use student drafts to model peer editing.
2. Provide evaluation guidelines specific to the work at hand (e.g., for narration, description, cause-effect, letter writing, etc.).
3. Assign each peer editor a specific role: to check spelling, to check sentence structure, to read for transitions, to edit mechanics and usage.
4. Require the entire group to respond to content: supporting details, organization, logic.

Comments/Notes:

Beyond Revising

Using the Computer to Analyze Style

Source

Frase, Lawrence T. "Knowledge, Information, and Action: Requirements for Automated Writing Instruction," *Journal of Computer-Based Instruction*, v11 n2 Spr 1984, pp. 55-59.

Brief Description

Using the computer's capabilities in an advisory role, you can use software such as *Writer's Workbench* to help students gain feedback on readability, punctuation, word use, and other literary variables.

Objective

To help students analyze their own and other texts; to draw comparisons about style; to notice differences in word length, sentence length, and sentence structure; to discuss the impact of those differences on the overall effectiveness of the written work.

Procedures

If you are using software that analyzes text, ask your students to determine their text's readability, sentence length, word length, and sentence structure. If you do not have the software to complete such an analysis, show students how to make these word counts on their own.

Ask students to compare their text analysis with a peer's. Teach your students to determine where the precise differences lie between their text and another. Discuss what the differences mean in terms of style, purpose, audience, and clarity.

- Manipulate your text (without destroying the original) to achieve a different result on the analysis. You may choose to make sentences shorter, to combine sentences, to add variety to sentences, or to alter the vocabulary.
- Working with a peer editor or editorial group, determine the effect(s) of the alterations. Make any further changes you wish before producing a final copy.

Personal Observation

Rather than using a complicated readability formula, use a simple "fog index." Professional writers often use a "fog formula" to check the clarity of their own work. Here's the way it works:

Use a sample of at least 100 words.

Step 1: Calculate the average number of words per sentence.

Step 2: Count the number of polysyllabic words per 100, but do not count those ending in *er*, *ed*, or *ing*.

Add the results of Steps 1 and 2. Multiply by .4—the result is the fog index.

Explain to students that the higher the fog index, the foggier the writing. The most comfortable reading level is considered by most to be a fog index of about 5 or 6.

Comments/Notes:

Prewriting

Invisible Writing at the Computer

Source

ED 268 547

Rodrigues, Dawn, and Rodrigues, Raymond J. *Teaching Writing with a Word Processor, Grades 7-13*. ERIC Clearinghouse on Reading and Communication Skills, Urbana, IL. 1986. 87 pp.

Brief Description

During the prewriting stage, some students spend too much time worrying about spelling, mechanics, and sentence structure. They worry about "how it looks." By turning off the monitors, you can help those students as they work with "invisible" writing tasks.

Objective

To improve the prewriting process; to focus student attention on content rather than details best left for subsequent drafting or revising and proofreading steps; to force students to think of what they want to say next and to keep writing.

Procedures

With students seated at the computer and the word-processing program booted up, explain that this prewriting technique is designed to force students to keep writing, keep writing, keep writing.

- Enter your topic, topic sentence, or general idea.
- Place the cursor at the left margin. Then turn off the monitor (but, of course, NOT the computer).

Have students freewrite for a period of time (time will vary with the maturity of the students).

- Turn on your monitor, reread what you have written, and use it as the basis for your next writing.

Personal Observation

The "invisible writing" technique will not tolerate interruptions from neighboring students, from the intercom, or from fire drills. Students must be permitted a free flow of ideas. In addition, students must be able to type reasonably well in order for this activity to be successful. Hunt-and-peck typists will probably get too bogged down in hunting and pecking to maintain their flow of ideas.

Writing Processes

Teaching the Précis with a Computer

Brief Description

The computer is an especially useful tool for demonstrating the writing process. When you go through the steps with students watching, the modeling helps them understand the changes that can easily be manipulated from the keyboard to the screen.

Objective

To teach the concept of précis writing; to use a large-screen monitor to model the process of writing a précis.

Procedures

Set up a large-screen monitor in your classroom. (See the lesson on setting up a large-screen monitor for classroom viewing, p. 11.)

Give the students a handout of a short article and ask them to read it.

Think aloud as you begin entering the précis of the short article into the computer. Talk your way through the process and let your students hear what kinds of decisions you are making, what questions you are asking yourself, and what answers you reach as you type in words and sentences. Ask for students' suggestions as you work. Ask for alternatives: different words, different phrases, different sentences.

When you complete the précis, produce a final printout and give a copy to each student. Thus, your students have both the original article and a completed draft that they all "helped" to create.

Use the same process with other similar composing tasks.

Source

Wright, Anne. "Computers as Instructional Aids." Version of a paper presented at the Spring Conference of the Greater St. Louis English Teachers Association, 1986. 6 pp.

Personal Observation

You do not model the writing process to teach your students to write as you do, but to allow them to see one person's thinking processes as composing takes place. They can see that you, too, struggle with alternatives, make false starts that necessitate changes and deletions, and work through the reflexive writing process as you go.

Three Ideas

Peer Collaboration at the Computer

Source

Wheeler, Fay. "Can Word Processing Help the Writing Process?" *Learning*, v13 n7 Mar 1985, pp. 54-55,58,60,62.

Brief Description

A major advantage of word processing is the opportunity for peer collaboration. Three approaches offer a wide variety of activities: simultaneous collaborative compositions, consecutive collaborative compositions, and collaborative sequencing activities.

Objective

To have students work together in collaborative situations, modeling the writing process for their peers; to complete collaborative compositions; to use sequencing skills to construct consecutive collaborative compositions; to apply thinking skills to reach logical sequences.

Procedures

Activity 1: Simultaneous Collaborative Compositions

Working with simultaneous collaborative writing requires students to share the task of planning, transcribing, and revising a piece of writing.

Group students in threes, each group at a computer.

Assign a writing project, such as developing a particular literary analysis, writing a letter to a mutual friend, or composing new dialogue for characters in a play. One student may enter text while others suggest what to say. When partners disagree, they can try out different solutions to see what "sounds" best. The result is a developing sense of audience and voice.

Tell the groups that all partners must agree on the final copy.

Activity 2: Consecutive Collaborative Compositions

Collaborative compositions are consecutive when one student begins a composition and another continues or completes it.

Establish a round-robin routine at computer stations, mapping out where each student moves from his or her current station.

Ask each student to begin a story, composition, or letter. You may choose to use a simulator, wordless picture, or writing prompt to begin the activity.

Set a timer for seven minutes (or whatever time is appropriate for your students to get a good start on a piece of writing). At the end of seven minutes, ask students to move to the next station and sign on. The sign-on can be as simple as inserting a name between diagonals right in the text: e.g. /Maryanne/.

Tell your students that before they can pick up where the previous writer left off, they must not only read but also focus on content and purpose. You can also ask more mature students to adopt the same style, mood, tone, etc. Suggest that they need to pay particular attention to transitions: *next*, *however*, *as a result*, *when*, etc.

Set the timer for a shorter period of time, perhaps five minutes. When the time is up, ask your students to move to the next station.

Continue until you have only one time period left. Then explain to students that this time they must bring the piece of writing to an end. Allow about seven minutes for this final time period.

Have students save the text for later printing and/or revision. Further collaborative activities can include peer editing of these compositions.

Activity 3: Collaborative Sequencing Activities

These activities take advantage of the computer's ability to "move" whole sentences and paragraphs.

On disk, present students with a mixed-up literary passage or pieces of student writing. Or you may choose to present a series of out-of-order sentences from a single paragraph.

Ask students to work in groups of two or three (one group to a computer) to rearrange the material. They can focus on organization (including various forms of paragraph structure, such as order of importance or chronological order), transition words, or writing style.

Personal Observation

Since many of us face a class of 25 or 30 students and a writing/computer lab with only 15 computers, the collaborative learning activities serve double duty: we can have every student at a computer and at the same time implement sound educational practices. As students model for one another and learn from one another, the writing process becomes less intimidating for all.

Word Processing

Helping ESL Students Learn to Write

Source

Piper, Alison. "Helping Learners to Write: A Role for the Word Processor," *ELT Journal*, v41 n2 Apr 1987, pp. 119-125.

Brief Description

The word processor has the capacity to engage students for whom English is a second language (ESL students). They are motivated to write more, an important accomplishment since writing is learned by writing, by reading, and by perceiving oneself as a writer.

Objective

To help ESL students write for effective communication; to help them work with verb forms; to help them recognize the paragraph as a unit in a composition.

Procedures

Activity 1

Pair students at a computer to compose and print out a short text. Ask each pair to submit a final copy of text completed during the class for your comments and reactions.

When students return to class, give them time to revise and proofread. Again, ask for a final copy.

Peer-editing activities will help fellow ESL students recognize usage problems common to ESL speakers.

Activity 2

To help students understand the differences among verb forms, input a paragraph citing each verb in brackets:

> It [sink] quickly to the bottom of the sea even before it [attack] by the French.

Ask students to work in pairs to enter the correct verb form. If students are paired, they must argue about the point on which they disagree. The discussion helps ESL students unravel the complexities of the language.

Personal Observation

Using collaborative learning activities with ESL students helps them learn as they struggle together toward a common goal. The word processor serves as a nonjudgmental means for jointly examining alternatives and looking at words, phrases, sentences, and paragraphs in a new language. Thus, they not only think about their writing, but they talk about it as well—activities that inspire concentration.

Comments/Notes:

Annotated Bibliography of Related Resources in the ERIC Database

Items in this annotated bibliography point to additional resources for teachers and administrators to use when incorporating computers into their instructional programs. The ED numbers for sources included in *Resources in Education* are included to enable you to go directly to microfiche collections, or to order from the ERIC Document Reproduction Service (EDRS). The citations to journals are from the *Current Index to Journals in Education*, and can be acquired most economically from library collections or through interlibrary loans.

Branan, Karen. "Moving the Writing Process Along," *Learning*, v13 n3 p22,24,26 Oct 1984.

The computer can be used in the classroom to make writing tasks less formidable. The word processor allows the writer to make corrections with less effort than rewriting an entire paper. Students are better able to see an imbalance between what they write and what they intended when writing with a computer.

Burns, Charles A., ed. *Insight: An Annual Collection of Articles on Teaching and Learning by Faculty of the Community Colleges of the State University of New York. 1984-85.* State Univ. of New York, Albany: Faculty Council for Community Colleges; State Univ. of New York, Albany: Office for Community Colleges. 1985. 47 pp. [ED 254 279]

Articles dealing with instructional approaches, faculty development, and student needs are presented. The 1984-85 collection includes: "An Evolving Partnership: The Community College-Secondary School Connection," by Cornelius V. Robbins; "What If Willy Loman Worked for You," by Paul W. Brennan; "Day Care Centers: The Versatile Student Support Service," by Anthony A. Adamo; "Cross-Disciplinary Writing: A Function of Faculty Development," by James Early; "Human Ecology: Liberal Arts for the Future," by M. Garrett Bauman and M. Thomas Cooper; "The Learning Disabled Student in the Community College," by Paula Beck; "The Classroom Connection: An Early Intervention Model," by Charles Croll and Linda Linville; "Computer-Assisted Instruction in Writing: The Freshman Composition & Research Paper Assignment and Donald Davis' Topoi," by Louis Chicatelli and Frank Madden; "Thinking Small: Some Hopeful Speculation about Faculty Development Programs," by Gail Rogers Rice; "A Preface to the Research Paper: The Student Seminar Approach to Literature," by Maryanne Vent; "The Technical/Medical Writing Lab: A Synthesis of Consultants, Computers, Composing, Credit and Interdisciplinary," by Christine M. Godwin; "Esprit: A Humanities Magazine," by Donald G. Parker and Barry John Capella; "Innovations in Laboratory Training for MLT AAS-Degree Students," by Myrtle M. Green and Sonja Hill; and "A Peer Evaluation," by Kay McKemy.

Caster, Tonja Root. *Computer-Assisted Instruction in Reading and Language Arts.* 1982. 28 pp. [ED 237 967]

A review was conducted of 16 research studies evaluating the effectiveness of computer-assisted instruction (CAI) in teaching reading and language arts in the elementary school. The studies were of what K. A. Hall has termed "interactive instruction," which includes drill and practice as well as tutoring. Of the studies reviewed, 13 used at least one experimental (CAI) group and one control group. Of these, four evaluated CAI's effectiveness in teaching vocabulary or language, four the teaching of reading, three the teaching of spelling and reading, and two writing instruction. The three studies that did not use control groups evaluated the effectiveness of CAI projects concerned with the teaching of reading. Nearly all of the studies reviewed found that CAI not only was effective but was more effective than traditional methods for teaching reading, vocabulary, and language. Findings for the effectiveness of CAI in the teaching of writing and spelling, however, were mixed. An extensive reference list is appended.

Cummins, Jim. "Cultures in Contact: Using Classroom Microcomputers for Cultural Interchange and Reinforcement," *TESL Canada Journal*, v3 n2 p13-31 Mar 1986.

Explores ways in which microcomputers may be used in classrooms, both to enhance academic skills and to allow students to interact directly with students in other cultures. Examines the transmission and the interactional pedagogical models in terms of using computers for teaching writing and instituting cultural exchange networks.

Daiute, Colette. "Issues in Using Computers to Socialize the Writing Process," *Educational Communication and Technology*, v33 n1 p41-50 Spr 1985.

Reviews communication capacities of computers that can be used to enhance the writing process; reports on recent studies of the social effects of using computers in writing classes, including a case study of student collaborative writing; and discusses research and teaching implications of research findings.

Davidson, Patricia. "Word Processing in the Secondary and Middle School," *Use of English*, v39 n1 p58-62 Fall 1987.

Describes a teacher's use of the word processor to help students improve their attitudes toward writing and their abilities in writing.

Davis, Kevin; and others. "Composing at the Word Processor: Confessions and Comments," *Teaching English in the Two-Year College*, v15 n2 p110-14 May 1988.

Presents and discusses three confessions regarding the effects computers have had on writing processes and products of three writing teachers. Suggests approaches to the use of word processing in composition courses and to research on such use.

Desilets, Brendan J. "Logo and Extended Definition," *Journal of Teaching Writing*, v5 n1 p43-50 Spr 1986.

Describes use of the programing language Logo and the Apple II computer to teach high school students how to write extended definitions. By defining procedures in Logo for drawing simple geometric patterns, students learn that good definition requires precision, rewriting and, in complex tasks, recursion, an aspect of extended definition distinguishing it from brief defin...ion.

Fisher, Glenn. "Word Processing—Will It Make All Kids Love to Write?" *Instructor*, v92 n6 p87-88 Feb 1983.

Computerized word processing can be a valuable tool for writing instruction because the machines make it easier for students to properly revise and correct their work. Ways that teachers and students can use the machines are described, and problems, such as limited access to computer terminals and the necessity for students to type, are noted.

Fler, Marilyn. "Using Microcomputers to Support Early Literacy Learning," *Australian Journal of Reading*, v10 n3 p177-82 Aug 1987.

Explains how computers can be used to support the basic conditions for language learning and the teaching strategies for a process orientation to writing instruction that are identified by the Early Literacy Inservice Course (ELIC) in Australia. Recommends using computers to match children with books, and for group learning.

Flinn, Jane Zeni. *The Role of Instruction in Revising with Computers: Forming a Construct for "Good Writing."* 1986. 33 pp. [ED 274 963]

Using J. Dewey's "reconstruction of experience" concept of revision, a study employed ethnographic methods to investigate the effects of computer-assisted writing instruction on students' revising processes. Primary subjects, eight sixth-graders, completed a structured revision task on their compositions, with varying degrees of computer interaction. Data sources included fieldnotes, interviews, audiotapes, videotapes, and writing samples. Retrospective interviews were conducted with the two primary case study writers, and their experiences were related to the revision patterns of 61 students in four classes. Statistics showed that students using computers to revise their compositions wrote longer papers and received slightly higher holistic scores. However, findings revealed that the most striking differences had little to do with computers—class means corresponded dramatically with instructional emphasis. Results suggested that students revised according to a construct of "good writing" that could be linked to three instructional emphases: fluency, word choice, and mechanics. Results also indicated that revision of fluency, word choice, and mechanics could be taught. Thus, the results suggest that the revision process is driven by instructional emphasis, not computer interaction. Interviews and scoring of the two primary case study writers and statistical tables are included.

Freedman, Sarah Warshauer; and others. *Research in Writing: Past, Present, and Future.* Center for the Study of Writing, University of California, Berkeley. 1987. 65 pp. [ED 285 205]

To support arguments for an integrative approach to the study of writing, this report summarizes past and current trends in writing research and the resulting implications. The introduction discusses pre-1970s, 1970s, and 1980s research trends, noting that current research focuses on the context in which writing takes place and points out the benefits of building a social cognitive theory of writing. The first section, containing a review of relevant

research, begins with a section on the uses of writing, stressing the notion of "communicative competence" as the individual's knowledge of appropriate uses of language in varied social contexts. This section also looks at the direction of current research, literacy communities, and the evaluation of written language. The second section of the literature review examines the nature of writing, and includes information on current research trends, possible new directions in research and their implications, writing processes and products, the role of technology, and individual differences in composing strategies. The third section of the report examines the acquisition of writing skills, with subsections on current research trends, the connection between writing and learning, the role of adults and peers, computer responses to writing, and new directions in research. The final section of the report suggests areas for future research. Twenty-one pages of references are included.

Gabriel, Dennis. "The Mainframe Computer in a Basic Reading and Writing Class." Paper presented at the Ohio Instructional Computing Conference, 1983. 5 pp. [ED 239 710]

The chief advantage of the use of a computer in a basic reading and writing class is that it helps the instructor do more with greater ease and comfort in less time. Initial problems associated with the use of a mainframe computer for instruction were: few programs which met the needs of community college students; lack of knowledge on how to train the students; difficulties in measuring gains; user resistance; lack of a strategy for its use; and possible faculty objections to students using the computer terminals. Most of these problems have not been solved; however, uses for the computer which have been developed include: (1) provision of diagnostic data through cloze tests, multiple-choice spelling and writing tests, and readability assessments of student writing samples; (2) electronic gradebooks (in the planning phase); (3) student-teacher communication by electronic mail; (4) drill and practice; (5) sharing of essays among classmates; (6) reduction of paperwork; (7) distribution of assignments by electronic mail; (8) individualization of instruction by sending different assignments to different students; (9) computerized availability of instructor handouts; and (10) weekly evaluation of student progress.

Goldman, Susan R.; Rueda, Robert. "Developing Writing Skills in Bilingual Exceptional Children," *Exceptional Children*, v54 n6 p543-51 Apr 1988.

This paper reviews two theoretical approaches (cognitive-developmental and functional-interactive) to the study of the writing of bilingual exceptional children and discusses their implications for effective writing instruction. Also described are two illustrative research projects, one employing the dialogue-journal technique on a microcomputer and another using narrative writing in dyads.

Hasselbring, Ted S.; Goin, Laura I. "Use of Computers." Chapter Ten in Robinsin, Greg A., ed., and others, *Best Practices in Mental Disabilities. Volume Two.* 1988. 21 pp. [ED 304 838]

This research-based review discusses effective computer applications for students with mental disabilities. Most computer-based instruction currently in use is of a drill-and-practice variety, which is needed to develop fluency in basic academic skills. Studies conducted on math fluency indicate that when students are using counting strategies to solve basic math facts, computer-based drill-and-practice activities do not lead to fluent recall of math facts, but tutorial plus drill activities can lead to fluency. In the area of reading, the scope of existing research is too narrow to draw conclusions about the utility of computer-based practice in remediating overall reading deficiencies, but microcomputers are well-suited for providing extended practice that can lead to increased fluency in decoding skills. Spelling research shows that improved spelling (with an accuracy level of over 90 percent) can result if the computer-based program requires students to use long-term memory, limits the size of the practice set to 20 spelling words, spaces practice over three weeks, and emphasizes speed and accuracy. Use of computers in teaching of writing should include instruction in keyboarding, word-processing and idea-processing software, and task-specific strategies. Also examined are the use of computers to teach thinking and problem-solving skills, through use of LOGO and simulations. A discussion of computer-managed instruction and monitoring concludes the paper.

Hazen, Margret; and others. *Report on the "Writer's Workbench" and Other Writing Tools.* North Carolina Univ., Chapel Hill, Microcomputing Support Center. 1986. 139 pp. [ED 277 015]

Comparing the effectiveness of several comprehensive computer-assisted writing tools, this final report on the Writing Tools Project evaluates five IBM programs—"Writer's Workbench" (WWB), "HBJ Writer," "Rightwriter," "UNC-CH Write," and "Writing Is Thinking"—and two Macintosh programs—"Writer's Helper" and "ALP MacProof." Each program is discussed separately and the project's design and implementation are detailed. The following summary observations were made: (1) the programs' analysis of computer text offered relatively little applicable advice; (2) although most programs were on-screen versions of traditional prewriting techniques, these methods may be more effective in computer form because they individualize the process and students prefer the anonymity and novelty of computer suggestions; and (3) the fluidity and neat, objective appearance of the words on the screen and the ease with which writers can edit and rearrange text made these programs powerful writing tools. Appendixes which make up more than half of the document include the WWB Proposal; a job description (lab

assistant); a mailing list; the WWB Lab Survey; memos circulated to students, instructors, staff, administrators, and attendees involved in the project; faculty and student comments; a chart comparing the software; WWB documents; a sample student paper; and sample output from "HBJ Writer," "Rightwriter," "Writer's Helper," and "Writer's Workbench."

Herrmann, Andrea W. "Collaboration in a High School Computers and Writing Class: An Ethnographic Study." Paper presented at the 36th Annual Meeting of the Conference on College Composition and Communication, 1985. 19 pp. [ED 258 256]

In a class of eight students, an attempt was made to determine the effects on student collaboration of using the computer as a writing instrument and the influence the computer might have on social relationships in a high school writing class. Student collaboration consisted of several kinds, including: (1) the sharing of technical help for using the computer and for making computer-created designs, and (2) working in pairs to create and edit a work and to write silly poems and "silent dialogues." These collaborations were important in reducing students' anxieties about both writing and computers, in their learning how to do things, and in establishing the relationships of trust necessary in exposing themselves as learners and writers. Students who learned to collaborate as writers in the class made noticeable gains as writers, felt positive about the experience, discovered writing as an important way of expressing themselves, and sustained their involvement with writing.

Hitchcock, Richard B. "The Software Jungle: Guidelines for Evaluating English Computer Programs." Paper presented at the 9th Annual Meeting of the Developmental Studies Conference, 1984. 9 pp. [ED 266 489]

Noting that the educational software market is expanding at a precipitous rate, but with considerable variation in quality, this paper outlines a thorough set of tangible and useful questions, based on two years of program design for English and writing lab usage. The major portion of the paper discusses criteria for evaluation in each of the following areas: (1) instructions, (2) user control, (3) screen format, (4) graphics, (5) data handling, (6) reinforcement, and (7) purpose. A sample courseware evaluation form is appended.

Hoot, James L.; Kimler, Michele. *Early Childhood Classrooms and Computers: Programs with Promise*. ERIC Clearinghouse on Elementary and Early Childhood Education, Urbana, IL. 1987. 3 pp. [ED 291 515]

Word processing and the LOGO programing language are two microcomputer applications that are beginning to show benefits as learning tools in elementary school classrooms. Word-processing packages are especially useful with beginning writers, whose lack of motor coordination often slows down their acquisition of competence in written communication. Software developed for beginning writers can: (1) provide learners with visual, motor, and even auditory support; (2) encourage learners to write more by minimizing mechanical drudgery; (3) encourage writers to focus on content rather than form; (4) increase the likelihood of revision; (5) provide learners with letter-quality output, which encourages sharing of writing; (6) promote social interaction, by making writing visible to passersby; (7) make writing appealing for special needs children; and (8) encourage positive attitudes toward learning. Researchers believe that while the graphics-oriented programing language LOGO does not teach the planning skills necessary for programing, it can help young learners by: developing problem-solving abilities; facilitating learning of mathematical concepts; and encouraging collaboration, social development, creativity, spatial relation development, and overall cognitive development—especially in special needs children. Teachers who understand both the power and limitations of these programs for children make the most effective use of both LOGO and word-processing software.

Humes, Ann. *Computer Instruction on Sentence Combining*. Southwest Regional Laboratory for Educational Research and Development, Los Alamitos, CA. 1982. 12 pp. [ED 239 580]

This description of an interactive instructional computer program in sentence combining for upper elementary and middle school students begins by summarizing the content of the program, which focuses on the instructional technique in which students are given two or more short simple sentences to combine into one longer, complex and/or compound sentence. An outline of the four lessons presented by the program—coordinate predicates, coordinate adverbs and predicate adjectives, coordinate direct objects and predicate nominatives, and three kernel sentences containing the syntactic structures presented in the first three parts—is followed by a description of the structure of the individual lessons, including branching that occurs in response to student answers and the procedures that terminate the program. A discussion of some of the problems involved in developing highly interactive instruction for teaching composition on a microcomputer, and a list of nine references conclude the paper.

Jamieson, Joan; Chapelle, Carol. "Prospects in Computer-Assisted Language Lessons." Paper presented at the State Meeting of the California Association of Teachers of English to Speakers of Other Languages, 1984. In *CATESOL Occasional Papers*, Number 10 p17-34 Fall 1984. 19 pp. [ED 253 062]

Some prospects for development of computer-assisted language instruction in six language skill areas (grammar, communication, reading, listening, speaking, and writing) are presented. In grammar instruction, a current challenge is to improve judging of student answers, and "intelligent" computer programs that try to identify the student's misconception (leading to production of a wrong answer) hold promise. Three potential aids for developing intelligent grammar programs include answer-judging algorithms, authoring systems capable of identifying errors, and programming languages designed for natural language processing. Communicative programming, which emphasizes group work, focuses on gaming and simulation as instructional techniques. Reading instruction by computer tries to address individual differences in speed and vocabulary, and many programs are currently available. Listening lessons by computer are the ones most frequently inquired about, and they combine computer interaction with spoken language via audiotapes. Some programs currently allow practice of students' speaking skills by either playing back a student's voice recording or plotting stress and intonation contours on a computer screen for comparison with a recorded voice's contours. A few programs are also available for writing instruction, using such techniques as incorporating student responses into prewritten texts, having students arrange sentences, or using text processing for teaching writing and revision. A list of available programs and their sources is appended.

Johnson, Donna M. *Using Computers to Promote the Development of English as a Second Language. A Report to the Carnegie Corporation.* 1985. 56 pp. [ED 278 211]

The status of computer-assisted language learning for elementary and secondary school limited-English-speaking students is reviewed, and recommendations for further research and development are proposed. The study was conducted through interviews with leaders in the field, site visits, classroom observation, attendance at workshops, and a review of the literature. The opening section provides background information and details of the study's organization. The second section discusses issues related to equal education and barriers created by limited English proficiency. The third section outlines common arguments in favor of computer-assisted language learning and the major uses of computers in the field. These uses include direct instruction focusing on either form or message, and indirect language instruction through subject area study. The fourth section addresses issues in software development, evaluation, and dissemination and discusses specific software designed for use in teaching English as a second language (ESL) and for purposes other than ESL. The fifth section reviews recent research on aspects of computer-assisted language learning and presents recommendations for research and development concerning classroom computer use, teacher training, lesson design, and software evaluation criteria. A list of 86 references is appended.

Kirkland, Eleanor R. "Writing to Read: A Computer-Based, Language Experience, Writing and Reading System, as Used with Handicapped Children." Paper presented at the 10th Annual Meeting of the Western Regional Reading Conference of the International Reading Association, 1984. 29 pp. [ED 248 480]

"Writing to Read" is a computer-based program designed to teach students with learning handicaps to "write to read." The philosophy of the program is that students will learn to read more effectively and efficiently if they are taught to write—to encode their normal language as the initial process in learning to read. Through the use of the IBM Personal Computer, the "Writing to Read" program develops skills by teaching children the phonemic constituents of the English language—not only the 26 letters of the alphabet, but also the 42 sounds of English that are represented in many different ways. It teaches them how to combine sounds and letters to create words, turn words into sentences, and write stories that are illustrated, bound into books, and read to the students' peers and to others. The program generates a great deal of student pride in their work and has been successful with approximately 600 students with a variety of learning problems. An observation checklist for possible problems in language and intellectual development is included.

Kurth, Ruth J. "Using Word Processing to Enhance Revision Strategies during Student Composing." Paper presented at the 67th Annual Meeting of the American Educational Research Association, 1986. 22 pp. [ED 277 049]

A study examined whether the use of word processors would enhance the amount and quality of students' revisions. Subjects, 28 high school sophomores and juniors enrolled in a special class for interested writers, met twice a week for 60 minutes in either a computer laboratory (experimental group) or in a regular classroom (control group). Findings showed that students learned basic word-processing skills quickly and with only limited practice.

Results indicated that the use of word processing in composition had motivational value, facilitated group discussions about writing, and helped foster peer editing. However, findings also showed that neither the length of the two groups' compositions nor the amount or quality of their revisions differed significantly. Analyses revealed that the experimental group had misspelled significantly fewer words than the control group—probably because it had access to a "spell checker." Questionnaires given to both groups to measure their attitudes about writing indicated that the experimental group felt significantly more positive than the control group about the instruction they had received, about their ability to write, and about editing groups. Overall, results showed that word processing can enhance the teaching of composition but cannot substitute for quality instruction in the entire writing process. A 46-item reference list is appended.

Larter, Sylvia; and others. *Writing with Microcomputers in the Elementary Grades: Process, Roles, Attitudes, and Products. Education and Technology Series.* MGS Publication Services, Toronto, Ontario, Canada. 1987. 242 pp. [ED 284 261]

A study examined and compared writing with and without microcomputers in the elementary schools. Specifically, the study examined (1) how the products of writing instruction with a computer differ from the products of traditionally taught writing, (2) the process of teaching writing, (3) teacher-pupil roles when pupils are writing, (4) teacher attitudes toward writing, (5) student attitudes toward writing, and (6) reading scores of pupils who write with microcomputers as compared with those of pupils who do not use microcomputers. Subjects, 90 teachers and 180 students from grades 1, 3, and 6 in the Toronto (Canada) public schools, were divided equally into three control and three experimental groups, according to grade level. The experimental groups used microcomputers for writing while the control groups used traditional methods. Findings indicated that elementary school children, particularly those in the primary grades, increased and improved their writing by using microcomputers and that such results could be obtained in a classroom in a six-month period with only a few computers. Findings also indicated that, for the students, the process of writing with microcomputers differed from the process of writing with traditional tools, and that it differed by grade level. Results suggested that the use of microcomputers for teaching writing in the elementary grades is compatible with the philosophy of teaching writing encouraged by the Ontario Ministry of Education and the Language Study Centre of the Toronto Board of Education. References, six appendixes, and 32 figures are attached.

Lawlor, Joseph, ed. "Computers in Composition Instruction." The Proceedings of a Research/Practice Conference Held at SWRL Educational Research and Development, 1982. Southwest Regional Laboratory for Educational Research and Development, 4665 Lampson Ave., Los Alamitos, CA 90720. ($4.00 per copy) 85 pp. [ED 226 709; paper copy not available from EDRS]

Suggestions for integrating computer technology and composition instruction are presented in four conference papers, summaries of four conference courseware demonstrations, a paper describing computer-based evaluation of textual responses, and a reactor's address. In an overview of the current state of computer-based composition instruction, Robert Shostak discusses the problems that writing teachers have traditionally faced and offers some promising solutions. Hugh Burns then describes a computer-based dialog designed to assist students in generating writing ideas during prewriting. Earl Woodruff discusses the role that computers can play in helping students compose text, and Ann Lathrop presents criteria for consideration when selecting courseware for purchase. The varied courseware materials demonstrated at the conference are then described. The conference reactor, Alfred Bork, suggests principles that should guide the development of computer-based learning materials and stresses the need for a solid research foundation. In an appendix, the editor outlines problems that instructional developers may encounter in designing programs for teaching writing and discusses the need for interactive programs that can evaluate the form and content of textual responses.

Lesgold, Alan M.; Reif, Frederick, eds. "Computers in Education: Realizing the Potential." Report of a Research Conference, Pittsburgh, Pennsylvania, 1982. Office of Educational Research and Improvement (ED), Washington, DC. [ED 235 784]

The full proceedings are provided here of a conference of 40 teachers, educational researchers, and scientists from both the public and private sectors that centered on the future of computers in education and the research required to realize the computer's educational potential. A summary of the research issues considered and suggested means for stimulating and supporting proposed basic and prototype research activities is followed by the Chairmen's Report. The invited papers are then presented: (1) "The Computer Age," by Herbert A. Simon; (2) "Technologies for Learning," by Raj Reddy; (3) "Paradigms for Computer-Based Education," by Alan M. Lesgold; (4) "Research on Science Education," by Jill H. Larkin; (5) "Research on Mathematics Education," by Robert B. Davis; (6) "Teaching Mathematics," by Steve Davis; (7) "The Mathematics Curriculum K-12," by Henry O. Pollack; (8) "Teaching Science,"

by Jim Minstrell; (9) "Research on Reading Education," by Richard C. Anderson; (10) "Research on Writing Education," by Robert Gundlach; (11) "Teaching Reading," by Catherine Copeland; (12) "Teaching Writing," by Brooke Workman; and (15) "Literacy," by E. D. Hirsch, Jr. Reports of the Conference Committees on Mathematics and Science (Frederick Reif) and Reading and Writing (Alan M. Lesgold) conclude the report.

Marcus, Stephen. "The Muse and the Machine: A Computers and Poetry Project," *Pipeline,* v8 n1 p10-12 Spr 1983.

"Compupoem" is a program that helps students write poems, emphasizes process/product, and encourages divergent problem-solving. A description of the program, sample student session, and an example of a completed poem are provided. The Computers and Poetry Project which produces elementary/secondary-level, interactive poetry-writing activities is also described.

McAllister, Carole. "The Word Processor: A Visual Tool for Writing Teachers," *Journal of Developmental & Remedial Education*, v8 n3 p12-15 1985.

Reviews two recent articles on computer use in the English classroom. Discusses ways that word-processing programs for microcomputers can be used to teach revision. Identifies the equipment and software requirements for using the approach and discusses practical benefits.

McLeod, Alan M., ed. "Computers in Language Arts." *Virginia English Bulletin*, v33 n2 Win 1983. 33 pp. [ED 238 010]

Examining the impact of computers in language arts instruction, this journal issue focuses on the practical classroom use of computers. The essays discuss the following topics: (1) using the personal computer to organize the language arts curriculum; (2) computers in a writing project; (3) the potential of microcomputers for English classrooms; (4) word processors in the composition classroom; (5) the effect of word processors on reluctant or poor writers; (6) software for English instruction; (7) finding and evaluating language arts software; (8) research supporting the use of computers in language arts; (9) teaching ideas for writing to learn; and (10) materials for a unit on censorship.

Mehan, Hugh; and others. "Research Currents: Knowledge of Text Editing and Control of Literacy Skills," *Language Arts*, v61 n5 p510-15 Sep 1984.

Discusses the potential of microcomputers for accomplishing educational goals beyond drill and practice software. Describes a program in which students have access to a computer-based network that connects classrooms in four states, which allows peer response, develops a sense of audience, and gives students greater control over their literacy development.

Mickelson, Norma; Davies, Anne. *A Whole Language Program in the Intermediate Grades: Questions and Answers*. 1987. 23 pp. [ED 290 146]

Focusing on a whole language program for the middle grades in Canada's Northwest Territories, this interview transcript consists of responses by Anne Davies, a teacher from Yellow Knife, in the Northwest Territories, and currently a doctoral student, to questions posed by Norma Mickelson, a professor at the University of Victoria in British Columbia. Davies claims that the whole language program is still evolving, but is already a viable alternative to traditional approaches in intermediate grade classrooms. Davies begins by asserting that very few modifications are necessary to use the whole language approach with older students, then describes a typical day in the classroom, which includes (1) reading; (2) sharing; (3) journal writing; (4) editing; (5) written reactions to reading; (6) logic exercises; (7) whole language content area instruction; and (8) quiet time. Davies next describes her holistic evaluation methods, which are based on observation. Davies' discussion then turns to using microcomputers in middle grade classrooms, including use of language arts software and interactive games. Finally, Davies talks about the role of the whole language teacher, interaction with administrators, the teaching philosophy, and the atmosphere in whole language classrooms.

Miller, Larry. "Computers and the Language Art." Paper presented at the Colloquium on Canadian Research in Reading and Language Arts in Canada, 1984. 17 pp. [ED 260 408]

Current approaches in developing and applying computer-assisted instruction in language arts are described in this paper, which presents diverse positions along a continuum of perspectives and draws contrasts between a reductionist or subskill approach and a whole language emphasis. The paper discusses three predominant computer applications in teaching composition: teaching writing through knowledge of grammar; leading students through the writing process, using computed-based tutorials; and combining the talents of teachers with word-processing programs. The paper then explores the capability of the computer to teach reading—using both subskills and a

whole language approach. Finally, issues important to the future use and development of this technology are discussed, and recommendations for new language arts software are presented.

Murray, Jack; and others. *Word Processing in Elementary Schools: Seven Case Studies. Education and Technology Series*. Ontario Dept. of Education, Toronto, Ontario, Canada. 1986. 67 pp. [ED 297 317]

As a result of preliminary observations of word processing in elementary level language the seven case studies presented in this report reveal the effectiveness of current word-processing (WP) activities within their respective instructional contexts. Each study is presented separately, detailing the classroom context, tasks and outcomes, program effectiveness, and results. Observations common to all of the studies are discussed under the following categories: (1) common features, such as the limitations created by the physical set-up of the labs and teachers' general satisfaction with the software; (2) younger versus older students, with younger students exhibiting the least facility with the keyboard and various machine functions while older students are able to take advantage of more of the functions offered by word processing; (3) regular classrooms versus labs, where computers in the regular classroom may create a physically congested environment and require a longer initial start-up time than would a lab situation; and (4) special education, specifically how WP can benefit students in this setting. Generally, the studies indicated that the type and/or degree of success students attain using WP is governed by the context in which it is used. The most important contextual variables identified in the studies were age, equipment availability, and location. Lists of software publishers and related reading are appended.

"Open to Suggestion," *Journal of Reading*, v31 n5 p476-79 Feb 1988.

Discusses (1) activities that encourage students to use formal vocabulary; (2) the use of computers to motivate remedial readers to write; and (3) a pilot study in which sustained silent reading and writing was used to improve the literacy of seventh and eighth grade remedial students.

Schwartz, Helen J. "The Student as Producer and Consumer of Text: Computer Uses in English Studies." 1986. 14 pp. [ED 283 211]

Computer use in the English classroom has the potential to help students enjoy and integrate their learning of writing and reading of literature in new ways. This new relationship between the student and machine-readable text can be thought of in terms of Alvin Toffler's theory of the "prosumer," a person who uses Information Age technology to combine the role of producer and consumer. Computer use in English classrooms can integrate the study of literature and creative writing, reading skills and writing skills, giving the student a new "prosumer" role as both producer and consumer of text. Three approaches can be used to integrate the study of imaginative writing produced by professional writers and the creative efforts of students: (1) the same software or technique can be used to analyze student and professional work; (2) software can guide students in creating imaginative work and then lead to activities analyzing published works; and (3) computer programs can involve students as collaborators in the creation of literary works. In the realm of expository writing, computer-aided instruction and word processing can also blur the distinction between the student as consumer and as producer, with programs for prewriting and text analysis and spelling or style checkers. Teachers can remind students that the computer's suggestions are only guidelines by showing them how a style checker would try to rewrite the work of famous authors. Sixteen references, including specific software cited in the text, are appended.

Schwartz, Susan. *All Write! A Teacher's Guide to Writing, Grades K to 6. Curriculum Series 55.* Ontario Inst. for Studies in Education, Toronto; OISE Press, 252 Bloor Street West, Toronto, Ontario, Canada M5S 1V6. ($16.00) 1987. 113 pp. [ED 293 159; paper copy not available from EDRS]

Directed towards elementary teachers interested in improving their writing programs, this guide focuses on motivating teachers to involve themselves and their students in the writing process. Each of the 12 chapters contains practical step-by-step procedures on implementing the writing process, and sample activities are illustrated. The first chapter discusses preparations needed for the classroom writing process, such as student writing folders, materials for writing, and scheduling a daily writing time. The second chapter deals with activities which introduce the writing process to students, including the question-and-answer technique, first draft writing and "inventive" spelling, and story telling. Other chapters include: (1) "Conferencing and Revising"; (2) "Choosing Topics for Storywriting"; (3) "Developing a Sense of Authorship"; (4) "Publishing Student Writing"; (5) "The Computer and the Writing Process"; (6) "How Can Parents Help?" (7) "Evaluation of Student Writing"; and (8) "Student Worksheets." Student writing models are included, and 14 references are appended.

Sinatra, Richard; Geisert, Gene. "Stressing Holistic Approaches to the Teaching of Reading and Writing Using Microcomputers." Paper presented at the 14th Annual Meeting of the Southwest Regional Conference of the International Reading Association, 1986. 12 pp. [ED 274 948; paper copy not available from EDRS]

An examination of the value of using more sophisticated computer programs in the language arts program led to the design and development of "Thinking Networks," which provide the teacher with a new tool for teaching through nonverbal representation. Using microcomputers to improve reading and writing instruction can incorporate the holistic approach to language learning, which emphasizes (1) the comprehending and composing of words, sentences, and paragraphs within the context of a complete discourse; (2) the synthesis of thinking; and (3) the use of language within real social contexts. The "Think Network Program" consists of software with which students can interact and, in keeping with the newest efforts to enhance the development of problem-solving, uses a graphic approach leading students to understand how a text is organized. It also ensures that students read complete stories or content area selections before booting up the disk. The comprehension work completed during network building shows students how the major and minor ideas of a reading selection are related. Other emerging holistic software programs are also requiring students to deal with whole units of text and to use decision-making, evaluation, and synthesis skills.

Smith, Nancy J. "The Word Processing Approach to Language Experience," *Reading Teacher*, v38 n6 p556-59 Feb 1985.

Reviews ways that the word processor makes the language experience approach easier for teachers and students.

Sommers, Elizabeth A.; Collins, James L. "What Research Tells Us about Composing and Computing." Paper presented to the Computer Educators League, 1984. 22 pp. [ED 249 497]

Research about writing and the teaching of writing has demonstrated that writing is a process, that thinking and writing are inextricably connected, that workshop and tutorial methods are more efficient than teacher or textbook dominated instruction in writing, and that correctness does not have to be a major concern in the teaching of writing. Although computer-assisted instruction for the language arts classroom is still in its infancy, researchers are already developing tools that help writers by interceding in writing processes. Effective prewriting programs, for example, offer the type of instruction trained teachers give in writing conferences. Research findings also confirm five important assets to word processing: (1) students often develop into more fluid writers; (2) revision is more intensive and varied, and is sustained over a longer period of time; (3) illegible handwriting is no longer an obstacle; (4) since they no longer have to recopy, students are more willing to revise; and (5) writers develop a deeper understanding of their writing processes. Other researchers are developing computer software to assist writers with locating and identifying errors. All of these research findings emphasize that microcomputers are helpful in classrooms when they are used integratively, with sound teaching methods, and that they are destructive when used out of context, without respect for the ways students learn to use language.

Squire, James R., ed. *The Dynamics of Language Learning: Research in Reading and English*. ERIC Clearinghouse on Reading and Communication Skills, Urbana, IL; National Conference on Research in English. 1987. 420 pp. [ED 280 060]

Focusing on future directions for English and reading research, the papers presented in this book examine the complex interplay of skills, processes, and classroom conditions that influence the development of children's competence in reading, writing, and the language arts. The titles and authors of the essays are as follows: (1) "Reading and Writing Relations: Assumptions and Directions" (James Flood and Diane Lapp); (2) "The Cognitive Base of Reading and Writing" (Stephen B. Kucer); (3) commentaries by Alan Purves and Julie Jensen; (4) "Thought and Language, Context and Structure in Language Communication" (Diane Lemonnier Schallert); (5) "The Design of Comprehensible Text" (Robert C. Calfee); (6) commentaries by Judith Langer and Robert J. Tierney; (7) "The Shared Structures of Oral and Written Language and the Implications for Teaching Writing, Reading, and Literature" (Miles Myers); (8) "Oral Language, Literary Skills, and Response to Literature" (David K. Dickinson); (9) commentaries by David Dillon and Rosalinda Indrisano; (10) "Research into Classroom Practices: What Have We Learned and Where Are We Going?" (Bryant Fillion and Eric S. Breuse); (11) "Classroom Practices and Classroom Interaction during Reading Instruction: What's Going On?" (M. Trika Smith-Burke); (12) commentaries by Arthur N. Applebee and Dolores Durkin; (13) "An Examination of the Role of Computers in Teaching Language and Literature" (Bertram C. Bruce); (14) "Technology, Reading, and Writing" (Lawrence T. Frase); (15) commentaries by Johanna DeStefano, and Edmund J. Farrell; (16) "Organizing Student Learning: Teachers Teach What and How" (Jane Hansen); (17) "Assessing the Process, and the Process of Assessment, in the Language Arts" (Peter Johnston); (18) commentaries by Jerome C. Harste and P. David Pearson; (19) "Constructing Useful Theories of Teaching

English from Recent Research on the Cognitive Processes of Language" (M. C. Wittrock); (20) "Themes and Progressions in Research in English" (John T. Guthrie); and (21) "Retrospect and Prospect" (James R. Squire).

Stromberg, Linda; Kurth, Ruth J. "Using Word Processing to Teach Revision in Written Composition." Paper presented at the 33rd Annual Meeting of the National Reading Conference, 1983. 11 pp. [ED 241 953]

Recently a number of writers and researchers have praised the editing and text moving capabilities of word-processing programs, proposing that they can be useful in helping students revise more readily and skillfully. With this premise, 16 eighth grade students participated in a program in which they used a text editor or word-processing system to complete written assignments. The system used was "Easy Script" for the Commodore 64 microcomputer. After 2 weeks of practice with the editing functions, the students began simple composition assignments. They also participated in editing groups. Students then brought assignments from other classes to complete using the text editor. After 5 weeks, students filled out a questionnaire concerning their attitudes toward word processing. The responses as well as the observations of the students' behaviors indicated that the students were very positive about their experiences with the word-processing system. One of the most obvious benefits of the use of the word-processing system was the development of a sharing attitude among students enhanced by the computer lab or center. Probably the most usable word-processing system for students is a scholastic program called "Bank Street Writer," although the "Easy Script" proved successful. One instructor asserts that teaching a sophisticated word processing system such as "WordStar" is, in the long run, more beneficial to students than are simpler programs.

Troutner, Joanne. "Computers and Writers: Software and Other Resources (Instructional Materials)," *English Journal*, v77 n5 p92-94 Sep 1988.

Offers annotated references to both print materials and software packages used for teaching writing.

Vockell, Edward L. "The Computer and Academic Learning Time," *Clearing House*, v61 n2 p72-75 Oct 1987.

Recommends using academic learning time as the major factor in deciding whether and how to introduce the computer into the curriculum at any grade level or any subject.

Warash, Barbara Gibson. "Computer Language Experience Approach." Paper presented at the 3rd Annual Meeting of the National Council of Teachers of English Spring Conference, 1984. 14 pp. [ED 244 264]

The West Virginia University Child Development Laboratory has successfully used microcomputers as a complement to their language experience approach to teaching three- and four-year-old children. The computer acts as a motivational tool, and gives children the opportunity to produce perfectly typed pictures or letters. The first encounter a child has with the computer is with the scribbling program. By pushing any key on the keyboard the child can make various lines, curves, and geometric shapes on the monitor that he or she normally cannot draw freehand. Just as a teacher may print a child's dictation when he or she draws freehand, the teacher types the child's verbalizations about the computer picture. The story appears below the picture and then a paper copy of the picture and story are printed for the child. Next, the child is introduced to a program in which specific keys draw specific objects, such as "B" for a boy or "D" for a dog. The child arranges the figures and composes pictures, then dictates an accompanying story, which is also printed. Results of a study conducted at the lab indicated that children verbalized significantly more about their computer pictures than about their hand-drawn works. In conjunction with developing language and motor skills, the children are developing a positive attitude toward the microcomputer. Examples of children's computer scribbles and drawings with accompanying text are included.

Whitmer, Jean Elizabeth; Miller, Margaret. "The Effects of Writing on Reading Abilities: A Comparison of First Grade Writing Programs with and without Computer Technology." Paper presented at the 18th Annual Reading Conference, 1987. 92 pp. [ED 289 157]

The IBM Writing to Read program for children in kindergarten and first grade uses computers with voice output and IBM selectric typewriters to encourage writing and hence reading development. A study examined whether increased writing activity without the use of the technology would produce similar gains in reading. A classroom from the IBM program (group A) and an experimental writing classroom (group B) were compared with each other and with a control classroom (group C). Group A used a lab five hours per week for computer-based instruction in sound-symbol relationships, followed by structured story-writing and reading. Group B received four weekly hours of structured story-writing followed by reading, discussing, and expanding the stories. Group C spent approximately two weekly hours in their usual writing activities. Scores showed that the IBM group's gains in Reading Comprehension and Reading Total were significantly higher than those of the control group. Mean gains for

group B fell between the other two groups, differing significantly from neither. Among girls, mean gains were greatest in group A and, surprisingly, lowest in group B; however among boys, mean gains were highest in group A, lowest in group C. This suggests that structured writing time, regardless of technology, may have increased their reading abilities. The amount of time scheduled for structured writing appeared to be an important factor. Student writing samples are included.

Wright, Anne. "Computers as Instructional Aids." Version of a paper presented at the Spring Conference of the Greater St. Louis English Teachers Association, 1986. 6 pp. [ED 275 000]

The use of microcomputers as word processors for writing papers is commonplace in English departments, but there are many less well-known uses that English teachers can make of the computer. For example, word-processing programs can be used to teach sentence combining. Moving text on the screen is very easy, so it is possible to rearrange words or phrases and to discuss the differences these changes make in meaning or sentence flow. Computers are also helpful for demonstrating revision and group composing, with teachers going through the processes with students to help them understand the changes that can easily be manipulated on the screen. While writing research papers, students can prepare a preliminary question outline on the computer, save the outline on disk, and answer the questions as they do their research. Or students and teachers can use a computer unit with both large screen and small screen monitors. The students can watch the large-screen monitor while the teacher types, watching the small screen.

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